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ABSTRACT

A study was conducted to investigate the relationship between perceptions of the future environment of community colleges and perceptions of quality in community colleges among Iowa community college personnel. Questionnaires were mailed to a random sample of 181 community college professionals, requesting them to rate a series of statements according to their importance as indicators of quality at community colleges and to assess the likelihood of 53 future events/conditions and their impact on community colleges. Study findings, based on a 61% response rate, included the following: (1) there was no significant relationship between the future orientation of the respondents and their ranking of the 29 indicators of quality in community colleges; (2) there was no significant relationship between respondents' employment status, age, or sex and their perception of quality in community colleges; and (3) approximately 16% of the respondents had a post-industrial/service orientation toward the future, 16% had a post-industrial/self-reliant orientation, and 66% had no orientation toward the future. The survey instruments and a literature review on conditions of decline in higher education, organization theories, characteristics of community college quality, future studies, and employee expectations are included. (LAL)

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A Study of the Relationship Between Iowa Community College Personnel's Post Industrial Society Orientation and Their Perceptions of Characteristics of Quality in Community Colleges

GERALD J. McCRIGHT

A MAJOR APPLIED RESEARCH PROJECT
PRESENTED TO NOVA UNIVERSITY IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

NOVA UNIVERSITY

1985

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An Abstract of a Major Applied Research Project Presented to Nova University in Partial Fulfillment of the Requirement for the Degree of Doctor of Education

A STUDY OF THE RELATIONSHIP BETWEEN IOWA COMMUNITY COLLEGE PERSONNEL'S POST INDUSTRIAL SOCIETY ORIENTATION AND THEIR PERCEPTIONS OF CHARACTERISTICS OF QUALITY IN COMMUNITY COLLEGES

BY

Gerald J. McCright

March 1985

This study was designed to investigate the relationship between the perception of the future environment of community colleges and the perception of quality in community colleges for Iowa Community College personnel. Other variables studied in relationship to quality were: employment status, age classifications, and sex. The ultimate purpose of the project was to contribute to the growing literature of quality in community colleges and to provide information for managers who are using strategic planning as a method of bringing about change in the organization of colleges.

The basic research questions for the study were: Is there a significant relationship between the perception of characteristics of quality in community colleges and the following variables--their perceptions of the future environment of community colleges, their employment status, their age classification, and their sex.

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The literature was reviewed in the following areas: (1) conditions of decline in higher education, (2) organization theories, (3) characteristics of quality in community colleges, (4) future studies, and (5) employee expectations in organizations.

For collection of data, two mail questionnaires were developed, validated, field tested and revised prior to administration to the sample. The two instruments were: Characteristics of Quality in Community Colleges and Perception of Future Environment of Community Colleges. The quality instrument contained 29 statements designed to be indicators of excellence or high ranking in community colleges. The 29 statements were divided into 2 sections: Institutional Resources and Management of Instruction and Resources. The Future instrument contained 53 statements about possible future social, political, and economic conditions that could develop in the decade after 1984.

A random sample of 181 community college personnel was selected from the list of Iowa Community College professionals maintained by the Iowa Department of Public Instruction. This was an 8 percent sample. One hundred and eleven useable returns yielded a response rate of 61 percent.

To determine future orientation, respondents were divided into three categories; Post Industrial - Service, Post Industrial - Self Reliant, and No Orientation. Mean

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scores on selected items were used to designate future orientation. Respondents grouped themselves in a normal distribution with about 2/3 in the No Orientation category and 1/6 in the other two categories.

Data analysis from the returned surveys was descriptive and correlational. An SPSS program was used to provide frequencies, percentages, mean scores, standard deviations, and chi-square values.

Four hypotheses were formulated and tested using a chi-square test for significance. The decisions to reject or fail to reject the null hypothesis were based on significance at the .05 level. The null hypothesis was not rejected for all four null hypotheses. Therefore, the alternate research hypotheses were accepted. Responses on the quality survey by future orientation, by employment status, by age classifications, or by sex were not significantly different.

The results show for the tested variables little differences in perception of quality indicators by Iowa Community College personnel.

The following reasons for these results were included in the study:

1. Recruiting policies for Iowa community colleges result in hiring people who have similar attitudes toward quality in community colleges.
2. People who were available to answer the survey in the months of June and July may happen to have

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similar views of the future environment of community colleges or of quality.

3. Two thirds of those surveyed had no orientation, as designated by the survey, for the future environment of community colleges.

4. The future survey may not have discriminated sufficiently between Post Industrial - Service and Post Industrial - Self Reliant visions of the future.

A conclusion drawn from the study is that strategic planning as used by community colleges should include the development of a perspective of the future environment within which the college will be operating. Those responsible for assembling strategic planning groups can be guided by the results of this study.

A list of recommendations was included at the conclusion of the study. They concern employment policies, future studies on quality, and the use of the survey instrument in in-service programs for faculty and staff of colleges.

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CHAPTER ONE

Introduction

> For the first time in history, education is now engaged in preparing men for a type of society which does not yet exist. Educational action to prepare for work and active life should aim less at training young people to practice a given trade or profession than at equipping them to adapt themselves to a variety of jobs, at developing their capacities continuously, in order to keep pace with developing production methods and working conditions. (Faure, 1972:13)

> This presents educational systems with a task which is all the more novel in that the function of education down through the ages has usually been to reproduce the contemporary society and existing social relationship. . . . At a time when the mission of education should be to train "unknown children for an unknown world," the force of circumstances demands that educationists do some hard thinking, and that in so doing they shape the future. (Faure, 1972:196)

Observers of community colleges point out that change is the most stable characteristic of higher education in the United States today. Community College personnel facing this change call upon their perceptions of the future environment in which their colleges will be operating to make present-day policies. As Alvin Toffler says in his book Learning for Tomorrow, "All education springs from some image of the future . . . if the image of the future is grossly inaccurate, its educational system will betray its

youth." (Toffler, 1974:3) James Gollattscheck captures part of the motivation for these changes when he describes the community college as the most ambitious institution in higher education, contending that never in the history of higher education has any institution attempted to do as much for as many. (Gollattscheck, 1984)

Much of the success of community colleges can be attributed to the sensitivity of the college to the needs of society. Those needs have in the past been translated into unique and successful programs for a widely diverse student body: a view supported by the Office of Technology Assessment Report (1982:83) which states that "More than any other educational institution, the American community college has exhibited an ability and a willingness to adapt rapidly to changing societal needs and circumstances."

Background and Significance

Campbell (1983) suggests that the United States is now experiencing changes that have not been paralleled since the Industrial Revolution. In that process, it took the nation around 100 years to shift from an agricultural to an industrial society. The transformation was rather slow (by today's standards) and was based on rather simple technological innovation. The new restructuring, however, Campbell suggests, will be accomplished in only two decades. The new society will be an information society. Campbell

states that information has become the dominant commodity in American society with 55 percent of the work force in the business of "generating, producing, storing, handling, transmitting, or regulating knowledge and information." Groff (1982:3) describes the change as one with the shift from physical productivity of material goods to the generation of information. Groff expects this transformation in society to bring on different political and economic structures. He uses a parallel to describe the changed situation in society. Whereas the industrial society could be characterized as interactions between people and goods of fabricated nature, the learning and information society will be characterized as interactions between people and ideas and knowledge. Masuda (1981:viii) describes this change in the following quote:

> Mankind is now entering a period of transformation from an industrial society to an information society. . . . Man is now standing at the threshold of a period of innovation in a new societal technology based on the combination of computer and communication technology, quite unlike any of the past. Its substance is information, which is invisible. This new societal transformation which, in a double sense, is unprecedented.

Campbell (1983) sees this change as a tremendous challenge to the leadership in community colleges. Those colleges whose personnel can adapt the missions, purposes, and programs of their colleges will survive. The

increasingly competitive structure of higher education will make flexibility the key to survival of many colleges. (Rowse and Wing, 1983) This flexibility can be described as the ability of the college to absorb negative responses and continue to be viable. Colleges that have been able to absorb these shock waves and maintain their efficiency and effectiveness will be able to make adjustments in personnel, expenditures, and programs without destroying the vitality of the college (Miner, 1979). Personnel in most organizations spend large amounts of time coping with day-to-day institutional problems. Thus, Chastain (1982) suggests that they are involved in crisis management. Examples cited of coping strategies in higher education are committee work designed to protect areas of the curriculum, adjustment of the curriculum to the demands of non-college narrow interest groups, and mediation of disputes between components of the college. Chastain observes that the organizations likely to enjoy sustained success must balance the expenditures or resources between current operations and strategic plans pertaining to later years. Chastain, furthermore, states that most organizations can cope successfully with simultaneously adjusting future strategies and the immediate needs of the organization.

B. Lamar Johnson reduces the problems facing community colleges to two statements:

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1. Community colleges are imperiled by their failure to give major attention to the improvement of instruction.

2. Community colleges are confronted with a financial crisis which requires the cutting of costs at all operational levels. (Johnson, 1983:35)

Keller (1983) describes colleges as occupying a special hazardous zone in society, between the competitive profit-making business sector and government-owned and run state agencies. To Keller, colleges are dependent on government or society for support, yet they have a relatively large amount of freedom in their policy-making. They are market-oriented, yet they are outside of the cultural and intellectual fashions that would generate immediate changes in profit-making institutions. College faculty members are inventors, entrepreneurs, and retailers of knowledge, aesthetics and sensibility, yet professionals like the clergy or physicians. Colleges pay no taxes but are crucial to economic development. Thus, colleges constitute one of the largest industries in the nation but are among the least business-like and least well-managed of all institutions.

Without a knowledge of the environment in which their college is operating and some insight into the future environment, community college personnel have difficulty developing strategies to achieve the college's goals, short term and long term. The formulation and selection of

strategic policy options require an accurate assessment of the environment with regard to the opportunities and the threats it poses to the institution. The effect of possible future trends and events must also be considered. (Marien 1982) According to Giroux (1984), the management of higher education literature suggests that societal and technological changes will be of such magnitude that educational institutions will be unable to keep pace and provide the skilled graduates who must function in the marketplace in the future.

Environmental assessment becomes particularly important when a primary problem facing community college personnel is the management of institutions facing complex changes arising from an increasingly chaotic and turbulent environment. Marien (1982:13) lists what he admits is an incomplete inventory of those changes facing colleges. His list includes the following changes:

1. changes in the general attitudes of the public and client groups toward education
2. changes in fiscal accountability policies in education
3. shifts in the activities of agencies regulating and supervising education
4. increasing complexity in the management of teaching and learning activities

5. scientific and technological innovations that can have an impact on education.

Koltai sees the following specific changes creating an environment of unprecedented complexity for post-secondary education:

1. enrollment slumps
2. collective bargaining agreements
3. redefined taxpayer priorities
4. legislative scrutiny
5. declining academic performance
6. the advent of student consumerism.

(Koltai, 1980:3)

Most education planning models are weak in identifying future trends in society and assessing their impact on education. They frequently assume a surprise-free future limited to the continuation of present trends of certain quantifiable and qualitative variables that may affect the college in the near future. Two examples of variables cited above are (1) college admissions figures compared over the last five years, and (2) grade point averages of transfer students to nearby colleges and universities.

Walz and Leu (1979) in their survey of futuristic issues and expectations (n = 79 administrators, planners, and officials of professional organizations) found strong agreement that examining a number of different alternative futures for different social and/or educational issues is highly useful for planning and decision making. They, and

others writing about educational developments in the community college, conclude that there should be more intense study and analysis of how educators perceive different societal and educational trends and developments.

Research Questions

For this study, a sample was taken of 181 Iowa Community College personnel to determine their perception of certain future trends in society. The respondents were also asked to rank certain characteristics of quality in community colleges. Three items of demographic were also obtained; employment status, sex, and age classification. Based on their responses to the Perceptions of the Future Environment of Community Colleges Survey, respondents were classified as Post Industrial - Service society oriented, Post Industrial - Self Reliant society oriented, or No Orientaton. The basis for the classification is the two visions of the future society provided by Marien (Appendix A).

This Major Applied Research Project (MARP) was designed to answer the following research question, Is there a significant relationship between Iowa Community College Personnel's perception of the future society and their perception of characteristics of quality in community colleges? Other research questions addressed in this study are: (1) Is there a significant relationship between Iowa Community College Personnel's employment status and their

perception of quality in community colleges, (2) Is there a significant relationship between Iowa Community College Personnel's age classifications and their perception of quality in community colleges? and (3) Is there a significant relationship between Iowa Community Colleges Personnel's sex and their perception of quality in community colleges?

The major issue addressed in this study is the definition of quality in a community college based on the respondent's view of future society, his employment status, his age classification and his sex? The data provided by this study will contribute to the growing literature in the fields of quality in community colleges, futures studies, and management of community colleges.

The major research hypothesis in this study is:

> there is a significant difference in the respondent's views of the characteristics of quality for a community college according to their perceptions of society in the future.

Other research hypotheses in this study are:

> there is a significant difference in the respondent's views of characteristics of quality for a community college according to their employment status.
>
> there is a significant difference in the respondent's views of characteristics of quality for a community college according to their age classification.
>
> there is a significant difference in the respondent's views of characteristics of

quality for a community college according to their sex.

The null hypothesis tested in this study are:

there is no significant difference in Iowa Community College personnel's perception of the characteristics of quality for a community college according to their perceptions of the future environment of the community college.

there is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a commmunity college according to their employment status.

there is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their age classifications.

there is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their sex.

Definition of Terms

Several key terms are used in this research project. They are defined as follows:

Perceptions - refers to an awareness of the elements of the environment around oneself through direct or intuitive recognition.

Characteristics of Quality in Community Colleges - refers to those indicators or traits of community colleges which make it excellent. It also refers to indicators which place the college in a high rank compared to other colleges.

Decline - refers to the impact of the following societal trends on community colleges: (1) slow growth in the economy; (2) proportion of 18 to 22 year-olds in population decreasing; (3) impact of government regulation increasing; and (4) increased competition from other governmental units for tax revenues.

Post-Industrial Society - refers to the society that will emerge after the present industrial-based society becomes less important. The term has come into wide use today.

Post-Industrial Society--Service Society - refers to an information based society characterized by the widespread use of high technology, material affluence, and leisure. It is thought that the service society will allow man to master the environment through the use of advanced or high technology.

Post-Industrial Society--Self-Reliant - refers to a view of future society in which political and economic power are decentralized, people are ecologically oriented, and the appropriate or intermediate technology is sufficient for most tasks.

Iowa Community College Personnel - refers to all employees of Iowa Community Colleges and Vocational-Technical Institutes who are licensed by the Department of Public Instruction. This includes administrators and faculty members. No attempt was made in this study to

distinguish between types of administrators or faculty members.

Future Environment of Community Colleges - refers to the milieu for community colleges in the next decade. It includes the social and cultural setting in which the community college is expected to carry out its missions.

Future Studies - refers to the study of a broad array of demographic, social, economic, and political data, both historical and projective, in order to anticipate trends.

Strategic Planning - refers to a process used by institutions to analyze their strengths and weaknesses and to use this knowledge to formulate policies to adapt to a changing environment in the future.

Assumptions and Limitations

The following assumptions formed the basis for the importance and selection of research activities for this study:

1. The perception of community college personnel is an essential element in the development of institutional policies.
2. There are an infinite number of alternative policies/choices open to community college personnel at any given time.
3. The future of any given community college will be determined by a combination of its historical background, its present environment, chance occurrences in the future, and human choices (deliberate policy choices)
4. Responsible policies cannot be made with some perception of the future environment in which the college will be operating.

5. Community college personnel continually make choices/policies in an attempt to raise the quality of the community college in which they operate.

6. The definition of quality in a community college is based on the individual's perception of the future environment in which the college will be operating.

7. The term community college personnel includes all professional staff, i.e. administrators and faculty.

8. By contributing to the understanding of the relationship between the future orientation of those in community colleges and their perceptions of quality, this study can enhance the effectiveness of:

    a. staff development programs
    b. recruitment of personnel
    c. changes in college staffing assignments.

9. The data gained from the surveys completed by respondents are correct and reflect their current perceptions at the time of this study.

10. The sample population of 181 with 111 useable responses (61%) return is adequate for this study.

11. This study does not attempt to forecast or to do actual futures research.

The research activities and conclusions of this study are subject to the following limitations:

1. No attempt is made in this study to describe the factors which influence the respondents' perceptions of the future society.

2. Another study will be needed to replicate this study on a national scale in order to draw conclusions applicable to all community colleges. The sample for this study was limited to Iowa Community Colleges.

3. No attempt is made in this study to develop a single future scenario as indicated by the respondents. It only uses the responses to determine relationships between future perceptions and perceptions of quality in community colleges.

4. The two survey instruments were developed at Marshalltown Community College by the author. Content validity was determined by a specially selected committee at the college. The instruments do not reflect all aspects of quality or future conditions in society.

CHAPTER TWO

Review of Related Literature

The review of literature for this study has been subdivided into six main sections: conditions of decline in higher education, organization theories, characteristics of quality in community colleges, future studies, strategic planning, and the importance of employee expectations in organizational change. In the area of future studies, the following assumptions stated by Kauffman (1967:5) are accepted and have become an integral part of this study:

1. The future is determined by a combination of history, environment, chance, and human choice.
2. A wide range of alternative futures exist.
3. Responsible choices/policies cannot be made without a knowledge of the available options and their consequences.
4. The purpose of future research is not to predict, but to understand the range of options and how they may be affected by the interaction of choice and chance.

Community college personnel who understand the importance of future research will be better able to manage community colleges in the future. We can expect them to be able to anticipate and investigate trends and directions that will

yield a wide range of policy options for their colleges. Exploration of those options will allow a more informed choice to be made. (Enzer, 1972)

Conditions of Decline in Higher Education

Most predictions of the future of colleges and universities as organizations include conditions of decline. Cameron (1982) indicates that the severity and the precise nature of the decline are unknown, but almost everyone agrees that we are facing an era of cutback. To Cameron, the conditions of decline are a product of the external environment in which colleges and universities exist. He suggests these conditions may arise from enrollment trends, financial exigencies, and unexpected disasters. A key point for policy makers is that any institution existing in conditions of decline does not necessarily undergo decline itself, depending on how the conditions are managed.

In Financing Community Colleges, Breneman and Nelson (1981:201) present both optimistic and pessimistic scenarios for the future of community colleges. The pessimistic scenario, which is widely quoted in the literature, includes the following conditions:

1. Slow or no growth in adult education because of saturation of demand and an unwillingness of government to provide subsidies
2. Shrinking enrollments in occupational/technical programs because of failure to maintain currency in equipment and instruction and increased competition from the private sector

3. Growing resistence to remedial instruction

4. Loss of transfer students because of four-year colleges' aggressive recruitment

5. Erosion of cost advantages due to decrease of support with tax monies

6. Absence of political clout in State Legislatures

7. Slow economic growth and a shrinking public purse to be distributed among an increasing number of claimants--health care, prisons, highways, and other public works.

According to Cameron (1982), many college administrators and faculty members are not prepared to cope with or to effectively manage decline in the college that they are associated with. Two reasons are given for this condition.

First, the experience of most people on staffs of community colleges has largely been related to conditions of growth.

> Present educational administrators have grown up in a rapid growth era and have been selected presumably because they are well adjusted to growth and capable of dealing with it. Perhaps the most serious immediate problem facing education and especially higher education, is that many skills that were highly desirable during the last 30 years may no longer be needed in the next 30 years. . . . One of education's first priorities, therefore, should be to develop a new generation of economic administrators who are skilled in the process of adjusting to decline. Yet, we know so little about decline that we are not even sure what these skills are. (Boulding 1975:8)

Second, the values and ideology of our **culture** emphasize growth and expansion as being indicative of effectiveness. Whetton (1980) pointed out that large size is widely lauded as a desirable characteristic in our culture. Argenti (1976), Kaufman (1973), and Perrow (1979) argue that growth enhances change, and the productive capacity of the organization. Managers typically are evaluated positively if they produce more, obtain a larger budget, or expand their organization. When the reverse occurs, negative evaluations often result. As Scott (1974:247) observed,

> What politician, public administrator or business executive in practice supports overtly to his constituents policies of economic concentration, reduction of agency services, or stabilization of sales volume and corporate earnings? How many university courses are offered in 'How to Shrink a Business?' How frequently do articles appear in the professional literature about management strategies of organizational stability or decay? These things seldom happen because they reflect values that are foreign to the mainstream of thought and practice.

Easton (1975:5) uses a similar argument:

> Contraction will be difficult to manage for two reasons: 1) the reverse process of growth is undoubtedly harder to perform, and 2) very few of today's managers and administrators have sufficient knowledge, experience, or training to cope with business contraction. Today's managers are trained in another school where to 'grow or die' rules their hearts and minds.

Cameron (1982) points out that the most widely accepted theory of organizations today is contingency theory, which is based on the notion that organizations are open systems. Decline is ignored. The more uncertainty and turbulence in the external environment of the organization, the greater is the need to be able to understand the complexity of the situation and be able to adjust according to this theory. This is usually done by adding boundary spanners, new departments, and additional information processing units and by lower coupling within the organization. In other words, the organization grows in order to adjust to the period of decline.

Organization Theories

Another area of study concerned with changing and improving organizations is organizational development, which assumes that as organization size increases, administrators must become more sensitive to the human aspects of the organization. (Argyris, 1964) Because it is held that organizations become rigid, centralized, and bureaucratic as they grow, organization development theory aims to humanize the workplace, enrich jobs and the climate of the organization, and gain greater participation of employees in goal setting with the organization. As a result of these policies, the individual and the organization are both benefited. Organizational development is needed because it

is believed that the organization will inevitably grow over time.

Galbraith (1977) developed a currently popular theory of organizational design. His theory postulates that the major problem facing organizations is processing increasingly complex amounts of information and then coordinating organizational sub-units in light of the increasing complexity. To achieve this coordination, the design of the organization becomes increasingly more complex. Matrix designs are used to demonstrate the diverse relationships developed within the organization. These "roadmaps" are needed because of ever increasing growth resulting from the internal information processing needs of the organization.

In the search of the literature, the theories most likely to be directed to decline are the models of organizational life cycles. These are models that trace the development of organizations from their birth through the different stages of their life. Most of these models hypothesize that identifiable stages occur in organizations as they develop. Quinn and Cameron (1982) reviewed ten different life cycle organizational models. Only one of them (Adizes, 1979) mentions decline in the organization. The other theories, studied by Quinn and Cameron, assume a pattern of growth for organizations.

It is assumed in this study that community college personnel included in the study have not been associated with decline in organizations. The association with decline is defined to mean the community college personnel's professional preparation, in the positions they have held, or in their general orientation to organizations.

This emphasis on growth has led to some interesting consequences in higher education. When faced with conditions of decline, administrators define these conditions as resource allocation problems or problems of efficiency and they respond conservatively rather than innovatively. Cameron (1982) indicates these consequences are not universal, but they are typical of many colleges and universities. Rubin's (1979) study of five universities responding to declining resources confirmed this conservative pattern. Whetten (1980) pointed out several examples of how decision-makers in higher education emphasize internal resource allocation aimed at operating more efficiently at the expense of longer term strategies for ensuring effectiveness in the organization.

Characteristics of Quality in Community Colleges

In sociological and economic studies of organizations, performance is usually described in terms of organizational effectiveness. In higher education, the term quality is usually substituted for effectiveness. Several other terms,

namely, performance, success, efficiency, productivity and accountability, are often used interchangeably. There is a small but growing area of the literature concerned with the broad concept of quality in community colleges. Perhaps a reason for the growing interest in this area is that raising the quality of a community college is a movement that gains universal support. Judgements about the quality of colleges are being made and will continue to be made by constituents of the college, lawmakers, bureaucrats, and those who are decision-makers in the colleges.

There is also support for the idea that quality in education will become more important in the future when colleges are facing a period of declining rates of growth and more competition for revenue and students. Quality, in this context, is viewed as a necessary condition for survival.

The issue of quality in community colleges begs the question, What are the characteristics of a good community college? Or stated another way, How do we know a quality community college when we see one?

According to Palmer (1984:52) this definition of quality is vitally important to community college personnel for three reasons.

1. Community colleges run the risk of being unfairly judged by a society that measures institutional quality in terms of high selectivity, a specialized curriculum, research productivity, and other

characteristics uncharacteristic of a community college.

2. Stabilized enrollments and decreased funding point to the fact that institutional quality cannot easily be equated with growing numbers of students or revenues.

3. There is a great need to separate the rhetorical from the factual in discussions of quality in community colleges.

The terms "quality" and "excellence" are used so frequently in the publications of professional associations, in convention themes, and institutional goal statements that they can be called buzzwords. They are mostly used without definition depending upon the user for meaning. In the Educational Record, Arthur Levine (1982:16) of the Carnegie Foundation for the Advancement of Teaching explains the difficulty in defining quality with this comment:

> Quality: where you sit determines where you stand. When we in academe talk about quality, each and everyone of us brings a lot of baggage, some of it excess to the discussion. We come with our experiences, our firmly held beliefs, our needs, myths, and strong feelings, all of which guide us and blind us.

Palmer (1984) in an important quality study reviewed all the community college materials in the ERIC database that (1) had been indexed with the descriptor "Educational Quality" and/or (2) included the words "quality" or "excellence" in the title. From the literature, he identified five determinants of quality at the community college: institutional resources, instructional and

management processes, student outcomes, value-added impact on students, and curricular structure and emphasis. These five determinants proved the basis for the construction of the Characteristics of Quality Survey used in this study.

Institutional Resources

Under institutional resources, Palmer found a bias toward equating quality with growth in terms of the size of the college and the number of course offerings. Another frequently used measure of institutional resources is faculty quality. One approach used to determine faculty quality is to compare community college instructors with four year college and university faculty members on the basis of the highest degree held, collegiate teaching experience, and memberships in professional organizations and honor societies. A different approach used in identifying faculty quality is to examine the pre-service and in-service training of the instructors. O'Banion (1973), for example, maintains that all community college faculty members should go through a pre-service program that examines the history and philosophy of the two year college, includes a study of characteristics of students in two year colleges, and demonstrates the instructional processes most suitable for community colleges.

Campbell found several references to students of the college as an institutional resource. Students who graduate in the upper half of their high school classes are thought

by some observers to add to the quality of the college. (Cox, 1966) Baker and Thompson (1981) specify the need for remedial programs for lower ability students to protect the curriculum from those who do not possess college-level skills. As a result of this perception of quality, more community colleges are initiating honors programs.

It is interesting to note that the level of funding available to the community college was given little attention in the literature. This would seem to be an important institutional resource.

Instructional and Management Process

The organization of the college is given great attention by those seeking a measure of quality. Several prescriptions for high quality are given in the literature: (1) utilization of a development oriented faculty evaluation program; (2) employment of a systems approach to management of the college; (3) the level of involvement of faculty in the delivery of community services of the college; and 4) establishment of campus learning centers where students could use self-paced learning materials. More subjective elements of college management are also mentioned, such as, the "vitality" of the institution (Parnell 1982) and in several studies the creation of a caring, teaching, learning environment in the college.

Student Outcomes

For many community college students, the vocational or job training emphasis has been very important. It is natural that this would show up in measures of quality. Specifically, success of graduates in finding jobs or transferring to a four year college was frequently mentioned as an important characteristic of quality. Palmer uses the numerous follow-up studies done by community colleges on graduates to illustrate the importance of this facet of quality.

Value-Added Impacts on Students

Value-added is an economic or a process-oriented term applied to the increase in knowledge/training gained by a student in college. Monroe (1966) calls for a systematic institutional quality control program that would be centered around documented student learning gains. Generally, those writers calling for this effort would initiate routine testing of students when they enter the college and when they leave. Palmer notes that there is support for this type of measurement of quality, but very little is included in the literature on the methodology for measuring learning.

Curriculum Structure and Emphasis

There seems to be a natural emphasis by those close to community colleges on curriculum as a means of judging

quality. Several writers focus on what is included or given importance in a college's curriculum. The quality issue found by Palmer in this area is the disagreement over the need to include general education material in vocational/technical programs. Writers for many years have stressed the importance of job-related competencies (Halstead, 1963) over enlightened citizenship or increased personal awareness in the community college curriculum. On the other hand, some writers have viewed the preparation for work alone as lacking in educational content and unfair to students. Dwyer (1963) agrees that quality vocational programs should include general education courses that prepare students for constructive and enlightened citizenship.

Palmer finds the comprehensive curriculum has reemerged as a key quality issue in community colleges. Cross (1982) comes to the conclusion that, in fact, colleges have been forced to choose individual curricular emphasis and there is no longer a unified "community college movement" in the curricular area. Palmer suggests that quality has become a distasteful matter because it may mean selecting a particular curricular emphasis and strengthening it at the expense of other programs in the college.

Palmer in his review of the quality literature concludes that there are numerous studies that discuss quality but there are few methodologies that can be used to

actually measure quality. To illustrate types of studies concerned with measuring quality, two representative studies are summarized here:

1. Burrill and Chapdelaine (No Date) propose long range, intermediate range, and short range outcomes for use in evaluating instructional quality at Howard Community College. The percentage of students accomplishing unit and course objectives defined in behavioral terms is used to measure short range outcomes. Graduate surveys on employment rate, transfer rate, graduate satisfaction, career success and "position in the community" are used to measure intermediate outcomes. Long range outcomes would be measured by surveys of graduates on "quality of life" and "satisfaction with self." Significantly, the authors do not specify a measurement for any of these outcomes.

2. Steuart and Rathburn (1982) surveyed administrators at Florida Community Colleges to determine what data the administrators believed were needed to make an assessment of program quality. The survey instrument asked administrators to rank the usefulness of 434 pieces of information regarding the quality of college programs. The results were used to draw up a profile for program quality. To use the profile, evaluators of a college would be required to gather data on the need for the program, enrollment, costs, equipment, and space utilization, required support services, student characteristics, faculty characteristics, and other information. The profile provides little understanding about how community college administrators measure quality because the study provides no indication of how the data is to be used in making a quality assessment.

The literature of quality indicates that judgements in community colleges are often made on the basis of subjective rather than empirical observations. Palmer concludes there is no consensus on the meaning of quality in the community

college. He calls for additional quantitative research into the quality issue. Keller suggests that if community colleges do not pay attention to the questions of quality, the alternative may be a quality audit by a new state board, which states like New York, Louisiana, and Illinois have already instituted.

Future Studies

Toffler (1970) directed the attention of a large segment of society toward the future. His book, Future Shock, not only outlined the social and psychological effects of the technological revolution on the present but also warned of the difficulties bound to result when unprepared citizens found themselves overwhelmed by rapidly accelerating changes in their futures.

Marien (1982), however, observes that futures study has been going on for some time in this country, beginning with Essays on Post-Industrialism in 1914. (Coomaraswaray, 1914) Marien has gathered a list of futures studies which he titles, "Putting Minds Together: Commissions, Anthologies, and Symposia on the Future, 1914-1981." An example of an early work cited is the President's Research Committee on Social Trends Report in 1933. Recent futurists cited are Herman Kahn, Buchminister Fuller, Hazel Henderson, Robert Theobald, and Alvin Toffler.

Of most importance to this study is the observation of Marien that starting in 1975 we can see the beginning of an

ideological bifurcation in futurist writings. He summarizes this development as "the two visions of post-industrial society" or the two post-industrialisms. Using a continuum to illustrate the two polarized definitions, Marien defines one side as the post industrial - service society, or an information society characterized by high technology, material affluence, and leisure. On the other side of the continuum are those who define post industrial society as a decentralized, ecologically oriented society. The technology employed in this society is called intermediate or appropriate for its purpose.

In the field of future studies, these visions of the post industrial state are not synonymous with conservative-liberal or left-right political spectrums. Rather than a debate over public vs private control of production, post industrial futurists are in conflict over the purposes and the scale of production in society. To provide a comparison between the two basic visions of the post industrial society, a chart is included in Appendix A.

Several distinctions between the two visions are worth noting in this study:

1. Most proponents of the self-reliant society are not affiliated with universities while the advocates of the service society are more generally affiliated with universities.

2. The two definitions of the "good life" present very clearly the distinction between a materialistic, leisure oriented life and a more frugal, work oriented life.

3. Under methodologies, proponents of the service society emphasize projecting trends and forecasting probable futures. Proponents of a more self reliant or "transformational" society avoid quantification and emphasize values. Service society advocates are very concerned about "realism" while the self-reliant advocates often are most concerned about "idealism."

Marien observes that there has never been a serious debate between proponents of the two post industrial visions. In fact, the two sides do not acknowledge the "post industrial" labels used in Marien's work.

Another view of the two visions of the post industrial society is presented in Appendix B. The service society descriptions are taken from Herman Kahn's report "Basic Long-Term Multifold Trend," which was done for the Commission on the Year 2000. The self reliant-society description is the work of Michael Marien.

Strategic Planning

The changing nature of society has serious implications for community colleges. All institutions of society, i.e., the family, religion, elementary and secondary education, various human services, government at all levels, businesses and industry, housing, and transportation, to name a few, must develop mechanisms to impact on the quality of life to insure their continued existence. Strategic planning is a process which is being used by numerous institutions in an

attempt to make them more responsive to the needs of society. (Groff, 1983)

Historically, most planning in educational institutions has been characterized by narrow visions of possible directions open to the institution. There are several reasons for this condition, such as (1) governmrent regulation at several levels, (2) expectations of students and constituents based on their past experiences, and (3) lack of planning mechanisms in most educational organizations. As a result, colleges are often faced with demands to move from a preoccupation with the past to a focus on the future. On the other hand, recent sweeping fantasies of what education might be, ignore legal constraints, financial restrictions, and the reluctance of many constituencies to sanction changes. Thus policy-makers are caught between two unrealistic views of what education should be. This conflict is important to this study because those responsible for planning often limit their activities to an 18 month or less time perspective. In this way, they can concentrate on tactical shifts in policy and often ignore longer range issues and choices. (Dede and Allen, 1981)

Other sectors of society, such as major corporations, have found effective models for strategic planning based on a time scale of several decades. In this study, it is assumed that strategic planning models can be useful to educators in community colleges.

In their study, Dede and Allen (1981:362) presented a multi-step model for education which could be adapted very easily to the community college environment. While most strategic planning models rely on some scenario-building of the future, this model relies most heavily upon future studies. The process outlined for creating policy in this model is

1. Probable alternative future scenarios of society are constructed, and in each the likely needs of education are assessed.
2. Key issue areas in education are identified, and practitioners in each issue area analyze current initiatives toward improvement and forecast likely future developments.
3. All of these issue reports are synthesized into a coherent, holistic picture contrasting educational changes needed--given the probable future of society within which the college will be operating--with current efforts to improve education.
4. After an examination of this assessment of the difference between needs and initiatives, actions to remedy gaps are defined.
5. As the future unfolds and the potential alternatives narrow for the college, a system of ongoing trend analysis helps in modifying strategic policy decisions.

Through this process, an appropriate balance is maintained between visionary and pragmatic concerns, between short-range and long-range decision-making, and between traditional and innovative educational efforts. Futures research tools provide methods by which the process of strategic planning in education can begin.

Another route taken to the present emphasis on strategic planning in higher education has been through the highly quantified systems analysis approach. The proponents of this approach use the term "management science." Management science developed so fast that an estimated one billion dollars was spent by American organizations in the early 70s on long range planning, systems and cost-benefit analysis, and management information systems. (Keller, 1983) Using the computer, models were rapidly created for higher education. Two examples of such models are:

1. CAMPUS (Comprehensive Analytical Method for Planning in University Systems) which calculates the resources necessary--faculty, equipment, space, operating funds--for various enrollment levels.
2. SEARCH (System for Exploring Alternative Resource Commitments in Higher Education) which was developed for managers of smaller colleges.

Benveniste (1977:5) studied what he called the new breed of advisors in higher education who "are concerned with the future, with what is to be done next. They are willing to provide advice; they have a domain of expertise. . . . The canons of their approach include team work, interdisciplinary research, a penchant for problems that can be quantified, and continued long-term involvement in policy, evaluation, and planning."

According to Keller (1983), another competing approach to planning developed almost simultaneously to the highly

rational systems analysis, simulation, and computer models. The second approach is called incrementalism. It is partisan-political while the management science approach is rational-economic. Incrementalism holds that the world is not rational and people are often not rational. Life, then, is essentially political. Change comes about to incrementalists through hundreds of time steps, no one of which is heavy footed enough to rock the boat. The steps need to appear as remedies or as small reasonable responses to great pressures from within or outside the organization. Policies made using this approach often require bargaining and are often considered democratic.

Lindbloom (1959:82) published a famous article, "The Science of Muddling Through" in which he argued that the "rational-comprehensive" method of planning for an organization is in fact irrational.

> It assumes intellectual capacities that man simply does not possess, and it is even more absurd as an approach to policy when time and money . . . is limited, as is always the case. Human beings can't see into the future, can't grasp all the complex variables in any major social decision, and can't imagine all the possibilities for improvement latent in any situation. Also, the notion that one should select values and goals and then seek the best among several courses of action for realizing them is folly. One chooses among values and among policies at one and the same time. Values and means cannot be separated neatly. Also, it is nearly impossible to get agreement on which means are best.

"Muddling Through," with bit-by-bit social changes to the existing political situation or organizational predicament was to Lindblom, the only method that made sense in a democracy.

Keller speaks of the search for a third way in planning. This approach would reject the arrogant excess of the highly quantified management science experts and passive accommodations of the highly political power brokers, according to Keller. He sees the quest for some middle ground in planning as being extremely important for the future management of colleges. Keller sees the search leading directly to the creation of a new field of strategic planning.

Strategic planning attempts to use the best of the previously outlined approaches. As Schmidtlein (1974) describes the new approach, it takes into consideration the constraints that affect the legitimacy and effectiveness of decision strategies and is sensitive to inevitable value trade-offs.

Strategic planning has been accepted and developed in its early stages by businesses. Keller (1983:115) describes the development of strategic planning in businesses in this way:

> Managerial science had roots in military planning, where political and consensual considerations could be largely dismissed and rational schemes ordered. Incremental "muddling through" had its roots in democratic politics, where bargaining was essential and rational and long-range planning

> was extremely difficult. But business organizations operate in both the rational-economic world and the partisan-political world. And as corporations have become more internationally competitive, oriented to long-run growth, politically regulated, and aware of the psychological and political needs of their increasingly white-collar and professional work force, they have had to become more aware of persuasive incrementalism as well as bottom-line strategies. On the other hand, governments and quasi-political non-profit organizations, pressed increasingly to come to grips with financial realities, huge deficits, and ethical issues raised by environmentalists, religious groups, and radical reformers, have had to take larger cognizance of the rational-economic side of their organizational lives. Thus, a new convergence is going on it the field of planning.

Keller welcomes the emergence of strategic planning in higher education. He argues that colleges and universities are realizing that they must manage themselves as most other organizations in society do: they are different and special but not outside the organizational world.

Importance of Employee Expectations in Organizational Change Situations

An awareness of employee expectations of the future society may alert policy makers to potential resistence to change, which in turn, they could consider when planning policy changes.

Woodman and Tolchinsky (1982) point out that interventionists (those planning changes in the existing state of organizations) do not commonly measure and incorporate expectations into their policy proposals even

though expectations have been empirically demonstrated to be of importance in affecting the outcome of those policy proposals. (cf. King 1974; Porras et al. 1982)

Pond, Armenakis, and Green (1984) indicate that little empirical research exists on the role of expectations in the whole organizational change process. They attribute part of this to the lack of measurement instruments. Their study explores the feasibility of including a measure of expectations as part of an organizational diagnostic questionnaire to be given to employees. Specifically, they examined the perceptions of employees regarding whether or not an organization could make improvements in certain aspects of the working environment. Their study demonstrated that measuring expectations during a diagnostic phase of change is possible but needs further improvement. A potential unintended side effect of the survey is that the respondents when questioned about their opinions of the future may experience raised expectations that something may actually be changed.

Summary

The review of literature brought out the following points which are important for this study.

1. A period of decline facing colleges has focused attention on how colleges are organized to plan for the future.
2. There has been an emphasis on growth in the size of institutions in the study of organizations.

This has influenced the perception of decision-makers in education.

3. Organizational effectiveness or quality, as the term is used in community college applications, will become more important in the future because of the increased competition for revenues and students. Little research is available on perceptions of quality or excellence in community colleges.

4. Strategic planning has evolved as a tool to integrate future studies and long-range planning in the management of colleges.

5. Employee expectations play an important role in organizational changes.

CHAPTER THREE

Procedures and Methods

The research design for this study, that includes the hypotheses, the variables in the study, the survey instruments, the sampling procedures, procedures for collecting the data, and procedures for treating the data, all are discussed in this chapter. They were developed to address the research questions in this study. The general directions for the design were suggested by the literature on quality in community colleges, futures studies, and perceptions of the future.

Design of Study

The basic method of applied research utilized is the statistical study of relationships between the independent variables and the indicators of quality on the Characteristics of Quality Survey. To obtain the necessary data to prove the research hypotheses, two survey instruments were constructed and validated, a sample was drawn, the survey was taken, and the data was analyzed using a chi square test for significance.

Variables in This Study

The major independent variable in this is the future orientation of Iowa Community College personnel. The future orientation is categorized as: Post Industrial - Service, Post Industrial - Self Reliant, and No Orientation or Neither. For this study, the operational definition of Post Industrial - Service is those respondents whose total scores on the Perceptions of the Future Survey fell below one standard deviation from the mean score of all respondents. Those respondents whose total score fell above one standard deviation above the mean were designated Post Industrial - Self Reliant. All those respondents whose total score fell within one standard deviation from the mean were designated No Orientation. These operational definitions were chosen arbitrarily to provide meaningful differentiation between the three variables.

The secondary independent variables used in this study are sex of respondent (male/female), employment status (faculty/administration), and age classifications (25-35, 36-45, 46-55, and over 55).

The dependent variable in this is the mean score on the Characteristics of Quality Survey. The mean score was computed for each respondent on the twenty nine item Likert-scale Survey. A high score indicated the item ranked high in importance as an indicator of quality in community colleges. A low score indicated the item was judged to be

of little importance in indicating quality in community colleges.

Research Hypotheses

The major research hypothesis tested in this study is

> there is a significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their perceptions of the future environment of community colleges.

The other research hypotheses tested in this study are

> there is a significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their sex.
>
> there is a significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their employment status (faculty/administration).
>
> there is a significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their age classifications used in this study.

The null hypotheses tested in this study are

> there is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their perceptions of the future environment of the community colleges.
>
> there is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community

college according to their employment status (faculty/administration).

there is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their age.

there is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their sex.

Survey Instruments

In order to obtain the necessary data to test the null hypotheses, two survey instruments were constructed to provide information on attitudes toward quality and future environments of community colleges. Suggestions from Babbi (1973) and Best (1977) were used in the overall design of the instruments.

The "Characteristics of Quality" instrument was modified from an unpublished questionnaire developed by Trudy Bers at Oakton Community College in 1982. (See Appendix C for Letter to Trudy Bers and Appendix D for permission to use parts of survey statement.) Her survey contained 51 characteristics in a total of 5 categories: faculty, operations, community, students, and resources. The respondent is asked to rate each characteristic on a Likert scale of 5 = extremely high importance to 1 = of no importance. The respondent rates each characteristic twice; once for all community colleges, and then for "this" community college. The statements on the Bers instrument

tended to be short and were stated in general terms. Two examples of characteristics to be rated are: "Degree Requirements" and "Student/Faculty Interaction."

For this study, a list of indicators of quality was developed using Palmer's 1984 study. The indicators are longer than the statements in the Bers Questionnaire and are stated in operational terms, i.e., "Percent of students placed in field for which they had training at the college" and "Percent of budget derived from private sources has increased over the last five years." Two categorical titles are used to separate the statements: Institutional Resources and Management of Instruction and Resources. The pilot instrument had 28 indicator statements.

The "Perceptions of the Future Environment of Community Colleges" instrument was modified from a survey used by the RAND Corporation of California and the research component of the Dallas-Fort Worth Metroplex Project for Planning a Secondary School of the Future. The survey instrument was used in 1973 in a nationwide study. (The results of the study are not available.) Items were chosen from a total of 195 statements in the RAND-Metroplex Survey for their applicability to the two Post-Industrial visions of the future as outlined by Marien (1982). Additional items were developed on political parties, changing family structure, poitical action committees, and population shifts. The total number of items in the pilot instrument was 58.

The two pilot instruments were reviewed by an advisory committee made up of:

Dr. Donald Fleming, Dean for Student Services and Operations

Dr. Paul Kegel, Dean of Marshalltown Community College

Mr. Richard Klaessy, Instructor of Sociology and Anthropology

Dr. Tom Colbert, Instructor of English and History

Each item on each instrument was reviewed by the committee. Revisions were made such that each committee member accepted each item. The revised pilot instruments were administered to the New Directions Committee at Marshalltown Community College. This committee is the strategic planning commitee for the college. It is made up of four administrators, nine faculty members, and two support people. Dean Beverly Nelson agreed to take committee time to complete the surveys. Committee members were timed to determine the approximate time needed to complete the survey. Individual committee members were asked to evaluate items as to their length, appropriateness, and choice of words.

Both instruments were revised and taken back to the advisory committee. Numerous changes in wording were approved by each member. The Futures Survey was reduced to 53 statements and the Quality Survey was increased to 29 statements.

To summarize, the qualifications for content validity for the two surveys were met in the following manner:

1. Statements from the RAND-Metroplex instruments were reviewed by the author.
2. The statements selected for uses were revised to fit the needs of this study. New statements were developed by the author.
3. A pilot instrument was developed and printed.
4. The advisory committee reviewed each item for content validity and clarity. After revisions were made, each item was approved by each committee member.
5. The revised pilot instruments were pre-tested with the strategic planning committee at Marshalltown Community College. Planning committee members evaluated items on the pilot surveys.
6. Questionable statements were reworded or eliminated. Based on the recommendation of the planning committee, the instructions were simplified.
7. The advisory committee finally approved each survey item for content and appropriateness. They determined that the survey statements presented a representative sample of the universe of the content that the surveys were designed to sample.

The survey instruments were typed in Canon 15 Point Micron type with all capital letters. This provided an attractive, easy-to-read document, and it reduced the number of pages needed for the surveys. The printing was done on an off-set printer and the finished survey was stapled into a four page form. (See Appendix E and F for a copy of the finished surveys.)

Three additional pieces of data were obtained at the bottom of the Characteristics of Quality survey page: sex, employment status, and age.

Determination of Sample

The sample of Iowa Community College personnel was drawn at random from the Iowa Department of Public Instruction's (DP) file of community college professionals. The file contains licensed, full-time professional personnel employed in the Iowa Community Colleges in September of 1983 (the beginning of the present academic year). The computer program used to draw the random sample was developed for the DPI by the Iowa State Computer Center. It retrieves from the file every Nth number and prints the name, college, and address on a gummed label. (See Appendix G for letter from DPI concerning sample list.)

For this study, an 8 percent sample was chosen based on consultation with Norlin Rober, statistics instructor at Marshalltown Community College, and after referring to Survey Sampling and Measurement by Namboodiri (1978), pages 18 and 19. The relatively large sample size (181) was chosen to.reduce sampling error, provide greater reliability, and to meet the cost limits set by the author. (See Appendix H for list of Iowa Community Colleges with numbers of professionals.)

The sample list was chosen in the first week in June of 1984 from the file list compiled by the DPI in the fall of

1983. The DPI does not attempt to continually update the list as people retire, die, or leave the community colleges during the year. To the extent that some sample members may no longer be in the Iowa Community Colleges, an element of error is introduced into the study. Based on turnover studies in community colleges in recent years, it was judged by author to be a relatively unimportant source of error.

Procedures for Collecting the Data

The following procedures were used in collecting the data for this study:

1. A cover letter was written to introduce the study to the sample members. The letter stressed the importance of returning the survey and the confidentality of the responses. (See Appendix I for the cover letter) Respondents were given an opportunity to receive a copy of the results of the study providing their names and addresses on a form located at the bottom of the cover letter. To preserve confidentiality, the form could be returned separately from the surveys.

2. An original letter of introduction was included in the materials sent to sample members. The letter was signed by the Superintendent of the community college district in which Marshalltown Community College is located. The letter asked for cooperation and emphasized the need for more basic research in Iowa on community colleges. (See Appendix J for a copy of the Superintendent's letter.)

3. A stamped, self-addressed envelope was included in the survey materials. A colorful 20 cent Commemorative stamp was attached to the return envelope.

4. One hundred and eighty one surveys were mailed on June 17, 1984.

5. Sample members were told in the cover letter that a number code would be used on the return envelopes to determine who had responded. A sample log was kept of the returned surveys.

6. On July 12, follow-up letters were sent to 92 non-responders. (See Appendix K for a copy of the follow-up letter.) Another copy of the survey was included in the packet with a stamped, self-addressed envelope.

7. The procedures used in collecting the data resulted in a return of 111 responses or 62 percent of the 181 surveys included in the study. (Two completed surveys were unuseable.)

Treatment of the Data

1. The collected data were computer processed using the SPSS statistical package. Simple frequency distributions, means, and standard deviations for survey items were determined from the computer printouts. These were examined.

2. The responders to the Perceptions Survey were divided into three groups according to the operational definitions of Post Industrial - Service, Post Industrial - Self Reliant, and Neither Orientation.

3. The 29 indicators of Characteristics of Quality in Community Colleges were tested with each of the three futures groups, the two age categories, the two status categories, and the four age categories with a chi-square test of significance.

4. The 29 indicators of Characteristics of Quality and the 53 statements in the Perception of Future Environment of

Community Colleges were each ranked from highest mean score to lowest mean score for all respondents.

CHAPTER FOUR

Presentation of Results

The purpose of this chapter is to report the results of the study, including an analysis of the findings based on the Survey of Iowa Community College personnel.

The survey instruments, which were mailed to an 8 percent sample of 2,220 Iowa Community College licensed professionals, resulted in 111 useable responses. The percent return was 61.3 percent out of a random sample of 181. Two returns were not completed in a form that could be used and one return was returned unanswered.

Profile of Respondents

While demographic variables were not the major concern in this study, three simple items were included on the bottom of the "Characteristics of Quality" Survey. They are: (1) Sex of respondent, (2) Employment status, and (3) Age by classification. Respondents were divided by employment status into faculty and administration classifications. Table 1 displays cross tabulations of the demographic data for the respondents.

Table 1

PROFILE OF RESPONDENTS BY EMPLOYMENT STATUS, SEX, AND AGE CLASSIFICATION

	Faculty		Administration		
Age	**Male**	Female	**Male**	Female	Totals
25-35	4	8	4	2	18
36-45	12	5	17	3	37
46-55	11	4	17	6	38
over 55	5	2	10	0	17
Missing					1
Totals	32	19	48	11	111

A profile of respondents was included in this study so that future researchers might better be able to relate the results of their studies to this Iowa study. Also the profile provides interesting information on the people who staff the Iowa Community Colleges.

In this study Males outnumber Females by 81 to 29. Age of the respondents is more concentrated in the middle classifications than the lowest and highest classifications. Faculty and administration are nearly equally represented, 51 to 59. Chi-square tests of significance were not appropriate for this data.

Table 2 presents a ranking of characteristics of quality in community colleges ranked from highest to lowest by mean scores for all respondents.

Determination of Future Orientation

To determine the future orientation of respondents according to the operational definition in Chapter 3, the total scores for each respondent ranked from highest to lowest. Because a high score on any given statement in the "Perception of the Future Environment" Survey indicated either of the two Post Industrial orientations, the items identified as Post Industrial - Self Reliant were recoded such that a high score overall would indicate a Post Industrial - Service orientation and a low overall score would indicate a Post Industrial - Self Reliant orientation. In the original survey 28 items were judged service oriented and 25 items were self reliant oriented. Table 3 displays the total scores of respondents with their frequencies and percents.

Given the characteristics of this distribution, one standard deviation on either side of the mean was used as the determining point for future orientation. The "breaking points" are 161 and 180 which are 1 standard deviation or 9 points above and below the mean. The resulting distribution is: 17 respondents designated Post Industrial - Service, 17 respondents designated Post Industrial - Self Reliant, and 77 respondents designated No Orientation.

Results

The three future categories were cross tabulated with the scores on the Characteristics of Quality Survey to determine if expected frequencies matched actual frequencies. In tabulating the scores on the Quality Survey, marks of 5 and 4 were combined into a high score and marks of 1 and 2 were combined into a low score. Three was left as the middle score or the score indicating medium importance. The result was three possible scores matched with three possible future orientations. The combining of the scores resulted in fewer vacant cells in the 3 x 3 contingency tables and did not materially increase margin of error.

Table 4 displays the tests of significance between each quality statement and the future orientation of respondents.

Table 2

Characteristics of Quality in Community Colleges Ranked From Highest to Lowest by Mean Scores for all Respondents

(n = 111)

Rank	Statement	Mean	SD
1	Level of Morale or Esprit de Corps Among Employees	4.473	.616
2	Degree of Understanding by Faculty/ Staff/Administration of Purpose of College	4.436	.736
3	Existence of a Demonstrated Reservoir of "Good Will" Toward the College	4.400	.638
4	Degree of Concern Shown by College for Student Development and Welfare	4.378	.633
5	Percent of Students Placed in Field for Which They Received Training	4.342	.681
6	Level of Satisfaction of Students with Academic Advising and/or Program Placement	4.309	.646
7	Level of Faculty Involvement in Program Development and Revision in College	4.225	.683
8	College Consistently Obtains Approval of Bond Issues, Property Tax Levies, and/or Specific Legislative Proposals	4.082	.825
9	Amount of Prior Work Experience of Faculty in Teaching Field	4.073	.798
10	Degree To Which Graduation Requirements Specify Competence in Performance of Certain Skills	4.036	.801
11	Degree To Which Part-Time Faculty Identify with College and its Goals	3.936	.874

Table 2 (Continued)

Rank	Statement	Mean	SD
12	Percent of Students Who Complete a Term or Course in Which Enrolled	3.862	.855
13	College Physical Plant and Grounds Look Clean, Neat, and Well Kept to Casual Observer	3.838	.781
14	Average Salary Increase Has Been at Least 5% Per Year for Last Five Years	3.730	.852
15	Extent of Faculty/Staff/Administration Involvement in Professional Activities, i.e., Attendance at Meetings, Service on Conference Panels, Papers Presented, Offices Held	3.664	.745
16	Five Percent of Colleges' Budget is Spent for Instructional Media Resources, i.e., Books, Newspapers, Films, Computer Software, Salaries, Etc.	3.618	.908
17	Percent of Budget Derived from Private Sources has Increased Over Last Five Years	3.495	.878
18	Measurement of Performance-On-The-Job Five Years After Leaving College	3.464	.905
19	Percent of Student Body Enrolled in Courses Using Computers Has Increased Each Year for Five Years	3.436	.773
20	Percent of Students and Faculty Using Media Facilities Each Week	3.418	.850
21	Percent of Faculty With Terminal Degrees in Their Teaching Fields	3.376	.921
22	The Number of Different Course Offerings and/or Programs Compared to the Number of Students in College	3.355	.830

Table 2 (Continued)

Rank	Statement	Mean	SD
23	Ratio of Part-Time to Full-Time Students Has Been Increasing Consistently	3.236	.898
24	Percent of Student Body Utilizing Internships, Practicums, and Co-op Experiences	3.202	.847
25	Utilizes a Program of Credit for Life Experiences or Credit By Exam, i.e., Military Schooling, CLEP, Advanced Placement, College Generated Credit-By-Exam, Etc.	3.193	.833
26	Percent of Faculty Who Have Had a Formal Course in Community College History/Philosophy/Teaching in the Last Five Years	2.909	1.045
27	Percent of the Courses Offered Off Main Campus Exceeds Five Percent of All Courses Offered	2.827	1.057
28	Ratio of Students Who Receive a "B" or Higher Equivalent Grade Average Compared to Number of Students Who Receive "D" or Less Equivalent Grade Average	2.826	.921
29	Percent of Student Body Who Graduated in Upper Half of High School Class	2.771	.909

Table 3

Total Scores on Perception of Future Environment of Community Colleges Ranked from Highest

(n = 111)

Total Score	Frequency	Percent	
207	1	.9	
192	1	.9	
190	1	.9	
189	2	1.8	
188	1	.9	
185	2	1.8	
183	1	.9	
182	3	2.7	
181	1	.9	Above-Service
180	3	2.7	Oriented
179	4	3.6	
178	3	2.7	
177	3	2.7	
176	1	.9	
175	7	6.3	
174	6	5.4	
173	3	2.7	
172	6	5.4	
171	7	6.3	
170	3	2.7	
169	7	6.3	
168	5	4.5	
167	4	3.6	
166	2	1.8	
165	4	3.6	Mean = 170.74
164	5	4.5	Mode = 161.00
163	3	2.7	Median = 171.00
162	4	3.6	Std Dev = 9.24
161	7	6.3	Below-Self
160	1	.9	Reliant Oriented
159	1	.9	
158	2	1.8	
156	3	2.7	
152	2	1.8	
148	1	.9	

Table 4

Tests of Significance Between Future Orientations and Quality Responses by Statement

(n = 111)

Statement: PERCENT OF FACULTY WHO HAVE HAD A FORMAL COURSE IN COMMUNITY COLLEGE HISTORY/ PHILOSOPHY/TEACHING IN THE LAST FIVE YEARS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	5	28	6	1.482
Medium Importance	8	29	4	
High Importance	4	20	5	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF FACULTY WITH TERMINAL DEGREES IN THEIR TEACHING FIELDS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	3	13	3	6.330
Medium Importance	9	32	2	
High Importance	5	31	10	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: AMOUNT OF PRIOR WORK EXPERIENCE OF FACULTY IN TEACHING

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	1	1	4.524
Medium Importance	6	15	4	
High Importance	11	61	10	

Critical chi-square = 9.49 df = 4 Alpha = .05

Table 4 (Continued)

Statement: EXTENT OF FACULTY/STAFF/ADMINISTRATION INVOLVEMENT IN PROFESSIONAL ACTIVITIES, i.e., ATTENDANCE AT MEETINGS, SERVICE ON CONFERENCE PANELS, PAPERS PRESENTED, OFFICES HELD

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	2	3	0	3.690
Medium Importance	7	25	5	
High Importance	8	49	10	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: DEGREE OF UNDERSTANDING OF FACULTY/STAFF/ ADMINISTRATION OF PURPOSE OF COLLEGE

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	1	1	1	3.398
Medium Importance	0	6	1	
High Importance	16	70	13	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF STUDENT BODY WHO GRADUATED IN UPPER HALF OF HIGH SCHOOL CLASS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	7	28	6	1.004
Medium Importance	7	30	7	
High Importance	3	18	2	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: COLLEGE PHYSICAL PLANT AND GROUNDS LOOK CLEAN, NEAT, AND WELL KEPT TO CASUAL OBSERVER

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	1	3	1	2.227
Medium Importance	2	21	3	
High Importance	14	53	12	

Critical chi-square = 9.49 df = 4 Alpha = .05

Table 4 (Continued)

Statement: LEVEL OF MORALE OR ESPRIT DE CORPS AMONG EMPLOYEES

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	0	0	1.408
Medium Importance	0	6	1	
High Importance	17	71	14	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF BUDGET DERIVED FROM PRIVATE SOURCES HAS INCREASED OVER THE LAST FIVE YEARS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	3	8	3	4.853
Medium Importance	4	26	7	
High Importance	10	43	4	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: EXISTENCE OF A DEMONSTRATED RESERVOIR OF "GOOD WILL" TOWARD THE COLLEGE IN THE COMMUNITY IT SERVES

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	0	0	0.658
Medium Importance	1	6	2	
High Importance	16	71	13	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF STUDENTS PLACED IN FIELD FOR WHICH THEY RECEIVED TRAINING AT COLLEGE

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	0	1	6.396
Medium Importance	1	8	1	
High Importance	16	69	14	

Critical chi-square = 9.49 df = 4 Alpha = .05

Table 4 (Continued)

Statement: LEVEL OF SATISFACTION OF STUDENTS WITH ACADEMIC ADVISING AND/OR PROGRAM PLACEMENT

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	1	0	4.412
Medium Importance	3	5	0	
High Importance	14	70	16	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: THE NUMBER OF DIFFERENT COURSE OFFERINGS AND/OR PROGRAMS COMPARED TO NUMBER OF STUDENTS IN COLLEGE

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	4	8	2	3.186
Medium Importance	8	32	7	
High Importance	5	37	6	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF STUDENT BODY UTILIZING INTERNSHIPS, PRACTICUMS, AND CO-OP EDUCATION EXPERIENCES

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	4	14	3	1.933
Medium Importance	9	38	6	
High Importance	3	25	6	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF STUDENTS WHO COMPLETE A TERM OR COURSE IN WHICH ENROLLED

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	1	5	1	2.924
Medium Importance	5	15	1	
High Importance	11	55	14	

Critical chi-square = 9.49 df = 4 Alpha = .05

Table 4 (Continued)

Statement: DEGREE TO WHICH GRADUATION REQUIREMENTS SPECIFY COMPETENCE IN PERFORMANCE OF CERTAIN SKILLS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	2	2	6.243
Medium Importance	5	13	3	
High Importance	12	62	10	

Critical chi-square = 9.49 df = 4 Alpha = .04

Statement: MEASUREMENT OF PERFORMANCE-ON-THE-JOB FIVE YEARS AFTER LEAVING COLLEGE

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	3	8	4	7.642
Medium Importance	9	23	4	
High Importance	5	46	7	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: RATIO OF STUDENTS WHO RECEIVE A "B" OR HIGHER EQUIVALENT GRADE AVERAGE COMPARED TO NUMBER OF STUDENTS WHO RECEIVE "D" OR LESS EQUIVALENT GRADE AVERAGE

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	7	27	4	1.206
Medium Importance	6	29	8	
High Importance	4	19	4	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF STUDENT BODY ENROLLED IN COURSES USING COMPUTERS HAS INCREASED EACH YEAR FOR FIVE YEARS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	1	8	3	4.423
Medium Importance	6	33	3	
High Importance	10	35	10	

Critical chi-square = 9.49 df = 4 Alpha = .05

Table 4 (Continued)

Statement: UTILIZES A PROGRAM OF CREDIT LIFE EXPERIENCES OR CREDIT BY EXAM, i.e., MILITARY SCHOOLING, CLEP, ADVANCED PLACEMENT, COLLEGE GENERATED CREDIT-BY-EXAM

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	4	10	5	4.274
Medium Importance	8	37	5	
High Importance	5	29	5	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF THE COURSES OFFERED OFF MAIN CAMPUS EXCEEDS FIVE PERCENT OF ALL COURSES OFFERED

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	5	28	6	0.754
Medium Importance	8	29	5	
High Importance	4	20	4	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: FIVE PERCENT OF COLLEGES' BUDGET IS SPENT FOR INSTRUCTIONAL MEDIA RESOURCES, i.e., BOOKS, NEWSPAPERS, FILMS, COMPUTER SOFTWARE, SALARIES, ETC.

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	1	8	4	5.733
Medium Importance	7	22	9	
High Importance	9	47	9	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: AVERAGE SALARY INCREASE HAS BEEN AT LEAST 5% PER YEAR FOR LAST FIVE YEARS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	1	3	1	4.459
Medium Importance	9	29	3	
High Importance	7	45	12	

Critical chi-square = 9.49 df = 4 Alpha = .05

Table 4 (Continued)

Statement: RATIO OF PART-TIME TO FULL-TIME HAS BEEN INCREASING CONSISTENTLY

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	5	15	6	5.073
Medium Importance	3	28	3	
High Importance	9	34	6	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: PERCENT OF STUDENTS AND FACULTY USING MEDIA FACILITIES EACH WEEK

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	2	10	3	0.465
Medium Importance	7	29	6	
High Importance	8	37	7	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: LEVEL OF FACULTY INVOLVEMENT IN PROGRAM DEVELOPMENT AND REVISION IN COLLEGE

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	1	0	1.143
Medium Importance	1	10	2	
High Importance	16	66	14	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: DEGREE OF CONCERN SHOWN BY COLLEGE FOR STUDENT DEVELOPMENT AND WELFARE

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	0	0	0.283
Medium Importance	1	7	1	
High Importance	16	70	15	

Critical chi-square = 9.49 df = 4 Alpha = .05

Table 4 (Continued)

Statement: COLLEGE CONSISTENTLY OBTAINS APPROVAL OF BOND ISSUES, PROPERTY TAX LEVIES, AND/OR SPECIFIC LEGISLATIVE PROPOSALS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	4	2	2.856
Medium Importance	2	10	2	
High Importance	15	63	11	

Critical chi-square = 9.49 df = 4 Alpha = .05

Statement: DEGREE TO WHICH PART-TIME FACULTY IDENTIFY WITH COLLEGE AND ITS GOALS

	Self Reliant	No Orientation	Service	Chi-square
Low Importance	0	4	1	1.722
Medium Importance	3	14	4	
High Importance	14	58	10	

Critical chi-square = 9.49 df = 4 Alpha = .05

NULL HYPOTHESIS NO. 1:

> There is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their perceptions of the future environment of the community college.

The chi-square values for the 29 statements of quality ranged from 7.64 to .284. The critical chi-square value for 4 degrees of freedom at the .05 level of significance is 9.49. Since the calculated chi-square values for every quality statement are less than the critical value, the null hypothesis cannot be rejected.

The future orientation of Iowa Community College personnel does not have a significant effect on the perception of quality in community colleges. The perception of quality in community colleges appears to be very similar regardless of their perception of the future environment of community colleges.

Table 5 displays the tests of significance between the quality statements and employment status of respondents for those statements in which chi-square values were significant.

Table 5

Tests of Significance Between Employment Status and Quality Responses for Those Statements with Significant Differences

(n = 111)

Statement: THE NUMBER OF DIFFERENT COURSE OFFERINGS AND/OR PROGRAMS COMPARED TO THE NUMBER OF STUDENTS IN COLLEGE

	Faculty	Administration	Chi-square
Low Importance	9	4	9.577
Medium Importance	14	34	
High Importance	26	22	

Critical chi-square = 5.99 df = 2 Alpha = .05

The critical chi-square value with 2 degrees of freedom at the .05 level of significance is 5.99. Only one of the 29 quality statements showed a significant difference between faculty and administration responses. It is: The number of different course offerings and/or programs compared to the number of students in the college.

NULL HYPOTHESIS NO 2:

> There is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their employment status (faculty/administration).

Only one quality response in the 29 statements showed a significant relationship between employment status and quality statements. The range of chi-square values is from 9.577 to .028. The null hypothesis cannot be rejected. The

employment status of Iowa Community College personnel does not appear to have a significant relationship to their perceptions of quality in the Community College.

Table 6 displays the tests of significance between the quality statements and age classifications for those statements in which the chi-square were significant.

Table 6

tests of significance between age classifications and quality responses for those statements with significant differences

(n = 111)

Statement: COLLEGE PHYSICAL PLANT AND GROUNDS LOOK CLEAN, NEAT, AND WELL KEPT TO THE CASUAL OBSERVER

	25-35	36-45	46-55	Over 55	Chi-square
Low Importance	2	2	0	1	20.135
Medium Importance	7	12	1	6	
High Importance	8	25	36	10	

Critical chi-square = 12.59 df = 6 Alpha = .05

Statement: LEVEL OF SATISFACTION OF STUDENTS WITH ACADEMIC ADVISING AND/OR PROGRAM PLACEMENT

	25-35	36-45	46-55	Over 55	Chi-square
Low Importance	0	0	0	1	15.371
Medium Importance	4	3	0	1	
High Importance	13	36	37	14	

Critical chi-square = 12.59 df = 6 Alpha = .05

Table 6 (Continued)

Statement: FIVE PERCENT OF COLLEGES' BUDGET IS SPENT FOR INSTRUCTIONAL MEDIA RESOURCES, i.e., BOOKS, NEWSPAPERS, FILMS, COMPUTER SOFTWARE, SALARIES, ETC.

	25-35	36-45	46-55	Over 55	Chi-square
Low Importance	2	6	4	1	14.341
Medium Importance	8	7	16	1	
High Importance	7	26	17	14	

Critical chi-square = 12.59 df = 6 Alpha = .05

Statement: DEGREE TO WHICH PART-TIME FACULTY IDENTIFY WITH COLLEGE AND ITS GOALS

	25-36	36-45	46-55	Over 55	Chi-square
Low Importance	3	2	0	1	18.442
Medium Importance	6	11	4	0	
High Importance	8	26	33	14	

Critical chi-square = 12.59 df = 6 Alpha = .05

In 4 of the 29 quality statements, the age classification showed a significant relationship. The range of Chi-Squares was 20.135 to 0.422.

Older respondents tended to rank the condition of the college physical plant and grounds higher as a quality measure than younger respondents. There was virtually no difference by age in the responses to "Degree of concern shown by college for student development and welfare."

NULL HYPOTHESIS NO. 3:

> There is no significant different in Iowa Community College Personnel's perception of the characteristics of quality for a

community college according to their age classifications.

The null hypothesis cannot be rejected. The age of Iowa Community College personnel is not significantly related to their perceptions of quality in the community college.

NULL HYPOTHESIS NO. 4:

There is no significant difference in Iowa Community College Personnel's perception of the characteristics of quality for a community college according to their sex.

None of the 29 quality statements had a critical chi-square above 5.99 which was significant with 2 degrees of freedom. The null hypothesis cannot be rejected. The sex of Iowa Community College personnel is not significantly related to their perceptions of quality in the community college.

CHAPTER FIVE

Summary, Interpretation, Conclusions, and Recommendations

The business of educational management is placing community colleges in the role of being forecasters of environmental trends, demographic changes, technology changes, and variations in political climate. The role of leadership in community colleges in the future will be that of vigorous and farsighted decision-making, allowing the leader to take charge in an environment of change. Keller (1983) envisions the policy making in colleges to come through a process of strategic planning which blends faculty and administrators into a group to face the changing environment within which the college must operate.

This study has focused on one element in this process of change. This study has examined the relationship between the future perspective of community college personnel and their perception of quality in community colleges. Other relationships examined in this study are between employment status, age classification, and sex compared to their rankings on the characteristics of quality in community colleges survey. A premise accepted in this study is that decision-makers in community colleges, whether they be

designated faculty or administration, base their day-to-day and long term decisions on what they perceive as improving the overall quality of the college.

Summary and Review

The major research question for this study was: Is there a relationship between the perception of the future environment of community colleges and the perception of quality in community colleges? In other words, does a person's view of the future environment in which the college will be operating influence their perception of what indicates a high level of quality for a community college? Three related questions were: (1) Is there a relationship between a person's employment status in the college and their perception of quality? (2) Is there a relationship between a person's age and their perception of quality? and, (3) Is there a relationship between a person's sex and their perception of quality?

Methodology

To procure data for this research, a survey was organized and conducted. Two survey instruments were developed and mailed to a sample of Iowa Community College Personnel.

The survey instruments were designed to assess the respondents' attitudes toward the future environment of community colleges and their attitude toward certain

indicators of quality in community colleges. The items in the two surveys were developed at Marshalltown Community College using a review of literature, two existing questionnaires, and an advisory committee.

After the items on the survey instrument were validated and field tested, they were mailed, with a letter of introduction, a letter of explanation, and a stamped, self-addressed return envelope, to an 8 percent sample of professionals working in the Iowa Community Colleges. The list of professionals is maintained by the Iowa Department of Public Instruction. The 181 names on the sample were computer generated by the table of random numbers program used by the Department of Public Instruction to draw random samples.

After a follow-up letter, 113 in the sample responded. Two returns were incomplete and were not used. The 111 useable responses represented a response rate of 61%.

The resulting data were processed in the Iowa State University Computer Center using an SPSS program. This provided frequencies, percentages, mean scores, standard deviations and chi-square values.

The 111 respondents were divided into three categories according to their responses on the "Future" Survey. The categories were: (1) Post Industrial - Service, (2) Post Industrial - Self Reliant, and (3) No Orientation. The work on Marien (1982) and others in futures studies was used to

develop these categories. Cross tabulations using the frequency distributions were made to investigate relationships between the variables in this study. The null hypotheses listed in Chapter 3 were tested.

Interpretation of Results

Research Question No. 1 -

> Is there a significant relationship between Iowa Community College Personnels' perception of the future environment of Community Colleges and their perception of quality in Community Colleges?

The analysis of the data showed there was no significant relationship between the future orientation of the respondents (divided into three categories) and their ranking of the 29 indicators of quality in community colleges. (The lack of a significant difference between responses for three categories will be interpreted at the end of this section.)

Research Question No. 2 -

> Is there a significant relationship between Iowa Community College Personnels' employment status and their perception of quality in community colleges?

The analysis of the data showed there was no significant relationship between employment status and quality. One of the statements concerning the number of courses or programs offered was the only statement in which

there was a significant difference between faculty and administration responses. Faculty responders tended to rank the number of courses and/or programs offered by a college higher than administrator responses.

Research Question No. 3 -

> Is there a significant relationship between Iowa Community College Personnels' age classifications and their perception of quality in community colleges?

Age was more a determinant of quality responses than the other three variables tested in this study. However, it was significant in only 4 out of the 29 responses. There were differences in responses by age classification in the following quality indicators: (1) condition of the college physical plant and grounds, (2) level of satisfaction of students with advising and program placement, (3) level of spending in college budget, and (4) degree to which part-time faculty identify with the college and its goals.

Research Question No. 4 -

> Is there a significant relationship between Iowa Community College Personnels' sex and their perception of quality in community colleges?

The sex of the respondent showed no significant relationship to the responses on the quality survey.

Summary

The lack of a significant difference between the responses by future orientation, employment status, age classification, and sex variables and responses on the quality statements may be attributed to the following reasons:

(1) People recruited into the Iowa Community College system appear to have similar attitudes toward quality in community colleges and toward the future environment of those colleges.

(2) People who were available to answer the survey in the months of June and July may be those who happen to view the future and quality in the same manner.

(3) Two thirds of the respondents were designated No Orientation because their scores on the Future Survey were clustered around the mean. The expected bimodal distribution was actually nearly a perfect normal curve distribution.

(9) The Futures Survey may not have discriminated enough between Post Industrial - Service and Post Industrial - Self Reliant visions of the future.

Conclusions

The review of literature emphasized the need for planning to overcome conditions of decline facing community colleges. A particular type of planning called strategic planning offers several attractive features that makes it suitable for community colleges. One of these features of strategic planning is the development of a perspective of

the future environment in which the college will be operating.

This study provides insight into the future perspective of community college professionals in Iowa. Those responsible for assembling strategic planning groups can be guided by the results of this study. For example, variables other than those studied in this work may be used as a basis for membership in the groups to provide the needed diversity.

The homogeneous nature of the personnel studied suggests that strategic planners may be very much alike in their perspectives of the future environment and their perceptions of quality in community colleges. These similar attitudes will influence the planning process and the results of the planning process.

The results of this study cannot be extended to community colleges in other states. Such factors as: the age of the system, the degree of state control versus local control, the relationship with elementary and secondary school districts, tenure laws, the relationship with state colleges and universities, and the influence of private colleges in state higher education planning all could produce different results from this study.

Recommendations

1. Employment policies should be developed to provide for a greater range of attitudes among the professionals recruited for the staffs of community colleges in Iowa.

2. Further studies are needed to examine the influence of such variables as: (1) undergraduate major, (2) graduate major, (3) rural/urban orientation, (4) salary, and (5) number of years in education.

Such studies may provide more significant relationships with the indicators of quality than those used in this study.

3. The Characteristics of Quality in Community Colleges Survey should be used in a study of a sample of the general population. A comparison of rankings with community college personnel should prove useful in understanding the role of community colleges in higher education.

4. The Characteristics of Quality in Community Colleges Survey instrument should be used by strategic planning groups to help gain useful insights into different perceptions of quality with the planning group.

5. The results of this study should be used to encourage in-service training programs for faculty and administrators in futures studies. The information society, which has been characterized as interactions between people, ideas, and knowledge, should be a major topic included in such programs. As Groff (1983) says, human resource

development in the information age will become increasingly more complex.

Recommendations for Diffusion and Implementation

The study's results and recommendations will be presented to the following individuals, agencies, and groups.

1. The Administration of Marshalltown Community College

The college is developing a strategic planning group. The members of the group including the administration of the college will be informed of the results of this study. This should enhance their understanding of the process of strategic planning, which they are participating in now. It also should provide a rationale for giving high priority to strategic planning for the college.

2. The Marshalltown Community College Faculty and Support Services Staff

The use of the Characteristics of Quality in Community Colleges Survey instrument in workshops should help utilize the potential for policy making by the faculty and staff. Issues which can be divisive in the group, can be brought into focus through the use of the survey on groups with the college. The resulting understanding of different points of view on quality in community colleges should encourage more participation in institutional decision-making.

3. The Membership of the North Central Research Association

The results and recommendations of this study will be summarized and submitted for consideration in paper form for the Fall 1984 meeting of the organization in Chicago. The Association is made up of community college personnel from 7 midwestern states.

4. The Readers of Professional Journals/Periodicals

a. Community and Junior College Journal--the pro-

fessional journal of the Association of Community and Junior Colleges in the United States. Publication in this journal will provide an opportunity to share the results of the study with community college educators nationwide.

b. Community/Junior College Quarterly of Research and Practice--a quarterly devoted to publishing original research papers that reflect emperically based developments in community colleges. Publication in this journal would share the results of the study with others in community colleges who are interested in current research on community colleges.

Futures Studies and perceptions of quality in community colleges provide a link in helping decision-makers develop policies that will allow community colleges to survive and to adapt to a rapidly changing environment. While this study did not find a statistical relationship between the actual perceptions of the future environment and characteristics of quality in community colleges, the intuitive link between an interest in and study of the future and a perception of what defines quality in a community college remains important.

This statement from Three Thousand Futures provides an appropriate perspective for the conclusion of this study.

> The future holds many unknowns. It also holds a range of already known choices that can be made by those making decisions about higher education. . . . External, particularly market, pressures will not alone lead to the best results. Internal thought, resolution, and determination are needed to assure that higher education as a whole and institutions individually reach 2000 with capacity to perform undiminished or minimally diminished

by the demographic depression. The surrounding environment in the next 20 years will create some special problems that we can already see. It does not, however, determine in advance how well these problems will be solved or how inadequately human choice, or absence of choice, will settle that. A downward drift in quality, balance, integrity, cynamism, diversity, private initiative, research capability is not only possible--it is quite likely. But it is not required by external events. It is a matter of choice and not just of fate. The emphasis should be on "managing of excellence."

THREE THOUSAND FUTURES: THE NEXT TWENTY YEARS FOR HIGHER EDUCATION. Carnegie Council on Policy Studies in Higher Education, 1980, p. 116.

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Appendix A

The Two Visions of the Post Industrial Society

The Two Visions of Post-Industrial Society

	Post-Industrialism As Service Society	Post-Industrialism As Self-Reliant Society
Other Positive Titles of Supporters	Information Society (M. Porat, Y. Masuda) Knowledge Society (P. Drucker) Technotronic Society (Z. Brzezinski) Super-Industrial Economy (H. Kahn/Hudson Institute) Advanced Industrial Society Modernized Society	Sustainable Society (L. Brown) The Transformation (G. Leonard) Transindustrial Society (W. Harman) Convivial Society (I. Illich) Human Scale (K. Sale) Solar Age (H. Henderson) Green Perspective (J. Lobell) Ecological Humanism (H. Skolimowski, V. Ferkiss) Steady-State Society (H. Daly) Third Wave Civilization (A. Toffler) Epoch B (J. Salk) Aquarian Conspiracy (M. Ferguson) Humangrowth (H. Cleveland) Ecotopia (E. Callanbach) Metaindustrial Paradigm (G. Coates) Conserver Society (K. Valaskakis) *—plus a few dozen others*
Negative Titles of Opponents	Hyper-Expansionist (J. Robertson) Hypergrowthmania (H. Daly) Overdeveloped Society (C. Ryan) Consciousness II (C. Reich) Friendly Fascism (B. Gross) Technocracy (J. Ellul, J. Meynaud)	Neo-Malthusians (H. Kahn) Anti-Growth (H. Kahn) Technophobes (A. Aldridge)
Major Thinkers	Herman Kahn, Daniel Bell, Irving Kristol, Peter Drucker, Ben Wattenberg, S.M. Lipset.	Theodore Roszak, Ivan Illich, Hazel Henderson, James Robertson, Amory Lovins, Willis Harman, William Irwin Thompson
Major Research Institutes	**(Conservative)** American Enterprise Institute Heritage Foundation Hudson Institute Hoover Institution Institute for Contemporary Studies **(Liberal)** Brookings Institution The Urban Institute Resources for the Future Council on Foreign Relations Committee for Economic Development	Worldwatch Institute Institute for World Order International Foundation for Development Alternatives (Nyon, Switzerland) SRI International, Center for the Study of Social Policy New Alchemy Institute Institute for Local Self Reliance
Premises and Promises	"The Good Life" as affluence and leisure; mastery of environment; big technology to solve problems	"The Good Life" as useful work, peace, self-fulfillment, health; harmony with environment; appropriate technology
Methodologies	Operations research Forecasting the probable future Trend projection with standard indicators Quantitative models "Value-free" position (covert values)	General systems theory Alternative futures; scenarios Conventional concepts questioned for narrow view (e.g., GNP) Preferred futures "Value-conscious" position (overt values)

Appendix B

Which Basic Long-Term Multifold Trend?

WHICH BASIC LONG-TERM MULTIFOLD TREND?

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	POST-INDUSTRIALISM AS SERVICE SOCIETY	POST-INDUSTRIALISM AS SELF-RELIANT SOCIETY
	Growth of a high-technology, materially affluent service or information society as described by Herman Kahn's "Basic Long-Term Multifold Trend" (The Futurist, June 1979 and various books by Kahn and Hudson Institute staff).	Movement toward a more decentralized and ecologically-oriented society, addressing the full range of human needs, essentially, a reversal or modification of the long-term trend to complex, depersonalized systems.
1. CULTURE	Increasingly sensate culture (empirical, secular, pragmatic, hedonistic); recently, an almost complete decline of the sacred.	Greater spirituality, with cultural movement toward a synthesis of spiritual and secular, "rational" and "non-rational," Eastern and Western traditions.
2. SCIENCE AND TECHNOLOGY	Accumulation of scientific and technological knowledge.	Industrial era paradigms underlying much "knowledge" questioned, as is reductionist trivia; more use of holistic methods to cope with complexity.
3. TECHNOLOGICAL CHANGE	Institutionalization of technological change, especially research, development, innovation, and diffusion.	Institutionization and technology assessment; more emphasis on appropriate technologies and calculation of total costs.
4. EDUCATION AND PROFESSIONS	Increasing role of bourgeois, bureaucratic, "meritocratic" elites; increasing literacy and education for all.	Increasing emphasis on self-help, participation, and questioning of professionals; growing stress on learning needs and ignorance.
5. DEFENSE	Increasing military capability of Western cultures, and recent diffusion of military technology to non-Western cultures.	Increased efforts to reverse the trend to militarism in all cultures; development of global peace-keeping structures and arms control agreements.
6. IMPACT OF WESTERN CULTURE	Increasing area of world dominated or greatly influenced by Western culture.	Increasing effort to limit domination of Western culture and allow survival of indigenous cultures.
7. MATERIAL AFFLUENCE	Increasing material affluence.	Decreasing material affluence as costs of over-development exceed benefits; broader quality-of-life measures developed and employed.
8. WORLD POPULATION	Increasing rate of world population growth, until recently.	Decreasing rate of world population growth.
9. URBANIZATION	Urbanization, urban sprawl, and growth of megalopolitan areas and rural areas with urban amenities.	Declining urbanization in rich nations and growth of non-metro areas relative to metro areas; in poor nations, efforts to stem growth of rural-urban migration.
10. ENVIRONMENT	Increasing recent attention to macroenvironmental issues.	Environmental costs included in new and more holistic measures of "progress" and "growth."
11. WORK FORCE	Decreasing importance of primary and, recently, secondary occupations; soon a decline in tertiary occupations and emphasis on advanced quarternary occupations.	Stability or decline in service sector; more emphasis on self-reliance, self-service, part-time employment, job sharing, small farms or partly self-sufficient homesteads; new occupational categories necessitated.
12. GOALS AND METHODS	Emphasis on "progress" and future-oriented thinking, discussion, and planning; social engineering.	Emphasis on new human needs-oriented definition of "progress"; serious consideration of preferred alternative futures replaces forecasting.
13. PACE OF CHANGE	Increasing universality of this multifold trend and increasing tempo of change in all of the above.	Increasing universality of this multifold trend and increasing tempo of change in all of the above.

Appendix C

Letter To Trudy Bers

Marshalltown Community College

Iowa Valley Community College District

3700 S. Center St.,

Marshalltown, Iowa 50158

(515) 752-7106

July 10, 1984

Ms. Trudy H. Bers
Director of Research
Oakton Community College
1600 East Golf Road
Des Plaines, Illinois 60016

I am a student of Dr. George Barton's in the NOVA University Doctorate in Education Program.

In my review of literature, I have found that you have done some work with indentification of indicators of quality in community colleges.

My research will be concerned with the relationships (If any) between the perceptions of the future environment of community colleges and some indicators or characteristics of quality in community colleges.

I have found a survey instrument which you sent to members of North Central Research Association for Community Colleges in January,1983. You indicate it is part of a continuing project.

May I have permission to use selected parts of the survey? Statements will be changed to meet the needs of my research.

If you have a later version of the survey, I would be very interested in obtaining a copy. If you would like a copy of my final survey instrument, I would be happy to share it with you.

Thank you.

Gerald J. McCright

Gerald J. McCright

Appendix D

Letter From Trudy Bers

Oakton
Community
College

July 23, 1984

Mr. Gerald J. McCright
Marshalltown Community College
3700 S. Center St.
Marshalltown, Iowa 50158

Dear Mr. McCright:

You have my permission to use parts of the January 1983 survey to the North Central Research Association. I have done no further work with this project.

Good luck in your work. I would like to see a copy of your results.

Sincerely yours,

Trudy Bers
Director of Research

maw

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Appendix E

Characteristics of Quality in Community Colleges

CHARACTERISTICS OF QUALITY FOR COMMUNITY COLLEGES

PLEASE RATE EACH OF THE FOLLOWING CHARACTERISTICS ACCORDING TO ITS IMPORTANCE AS AN INDICATOR OF QUALITY AT COMMUNITY COLLEGES IN GENERAL.

DEGREE OF IMPORTANCE

5 = EXTREMELY HIGH IMPORTANCE 4 = HIGH 3 = MEDIUM 2 = LOW IMPORTANCE 1 = NO IMPORTANCE/NOT APPLICABLE

INSTITUTIONAL RESOURCES

___ PERCENT OF FACULTY WHO HAVE HAD A FORMAL COURSE IN COMMUNITY COLLEGE HISTORY/PHILOSOPHY/TEACHING IN THE LAST FIVE YEARS

___ PERCENT JF FACULTY WITH TERMINAL DEGREES IN THEIR TEACHING FIELDS

___ AMOUNT OF PRIOR WORK EXPERIENCE OF FACULTY IN TEACHING FIELD

___ EXTENT OF FACULTY/STAFF/ADMINISTRATION INVOLVEMENT IN PROFESSIONAL ACTIVITIES,i.e. ATTENDANCE AT MEETINGS, SERVICE ON CONFERENCE PANELS, PAPERS PRESENTED, OFFICES HELD

___ DEGREE OF UNDERSTANDING BY FACULTY/STAFF/ADMINISTRATION OF PURPOSE OF COLLEGE

___ PERCENT OF STUDENT BODY WHO GRADUATED IN UPPER HALF OF HIGH SCHOOL CLASS

___ COLLEGE PHYSICAL PLANT AND GROUNDS LOOK CLEAN,NEAT,AND WELL KEPT TO CASUAL OBSERVER

___ LEVEL OF MORALE OR ESPRIT DE CORPS AMONG EMPLOYEES

___ PERCENT OF BUDGET DERIVED FROM PRIVATE SOURCES HAS INCREASED OVER LAST FIVE YEARS

___ EXISTENCE OF A DEMONSTRATED RESERVIOR OF "GOOD WILL" TOWARD THE COLLEGE IN THE COMMUNITY IT SERVES

MANAGEMENT OF INSTRUCTION AND RESOURCES

___ PERCENT OF STUDENTS PLACED IN FIELD FOR WHICH THEY RECEIVED TRAINING AT COLLEGE

___ LEVEL OF SATISFACTION OF STUDENTS WITH ACADEMIC ADVISING AND/OR PROGRAM PLACEMENT

___ THE NUMBER OF DIFFERENT COURSE OFFERINGS AND/OR PROGRAMS COMPARED TO NUMBER OF STUDENTS IN COLLEGE

___ PERCENT OF STUDENT BODY UTILIZING INTERNSHIPS,PRACTICUMS, AND COOP EDUCATION EXPERIENCES

___ PERCENT OF STUDENTS WHO COMPLETE A TERM OR COURSE IN WHICH ENROLLED

___ DEGREE TO WHICH GRADUATION REQUIREMENTS SPECIFY COMPETENCE IN PERFORMANCE OF CERTAIN SKILLS

___ MEASUREMENT OF PERFORMANCEONTHEJOB FIVE YEARS AFTER LEAVING COLLEGE

___ RATIO OF STUDENTS WHO RECEIVE A "B" OR HIGHER EQUIVALENT GRADE AVERAGE COMPARED TO NUMBER OF STUDENTS WHO RECEIVE "D" OR LESS EQUIVALENT GRADE AVERAGE

___ PERCENT OF STUDENT BODY ENROLLED IN COURSES USING COMPUTERS HAS INCREASED EACH YEAR FOR FIVE YEARS

___ UTILIZES A PROGRAM OF CREDIT LIFE EXPERIENCES OR CREDIT BY EXAM, i.e. MILITARY SCHOOLING, CLEP,ADVANCED PLACEMENT, COLLEGE GENERATED CREDITBYEXAM, ETC

___ PERCENT OF THE COURSES OFFERED OFF MAIN CAMPUS EXCEEDS FIVE PERCENT OF ALL COURSES OFFERED

___ FIVE PERCENT OF COLLEGES' BUDGET IS SPENT FOR INSTRUCTIONAL MEDIA RESOURCES, i.e. BOOKS, NEWSPAPERS, FILMS, COMPUTER SOFTWARE, SALARIES, ETC.

___ AVERAGE SALARY INCREASE HAS BEEN AT LEAST 5% PER YEAR FOR THE LAST FIVE YEARS

___ RATIO OF PART-TIME TO FULL-TIME STUDENTS HAS BEEN INCREASING CONSISTENTLY

___ PERCENT OF STUDENTS AND FACULTY USING MEDIA FACILITIES EACH WEEK

___ LEVEL OF FACULTY INVOLVEMENT IN PROGRAM DEVELOPMENT AND REVISION IN COLLEGE

___ DEGREE OF CONCERN SHOWN BY COLLEGE FOR STUDENT DEVELOPMENT AND WELFARE

___ COLLEGE CONSISTENTLY OBTAINS APPROVAL OF BOND ISSUES, PROPERTY TAX LEVIES, AND/OR SPECIFIC LEGISLATIVE PROPOSALS

___ DEGREE TO WHICH PART-TIME FACULTY IDENTIFY WITH COLLEGE AND ITS GOALS

SEX

___ MALE ___ FEMALE

STATUS

___ FACULTY ___ ADMINISTRATION

AGE

___ 25 - 35
___ 36 - 45
___ 46 - 55
___ over 55

Appendix F

Perceptions of the Future Environment of Community Colleges

PERCEPTION OF FUTURE ENVIRONMENT OF COMMUNITY COLLEGES

INSTRUCTIONS: THE FOLLOWING SURVEY IS COMPOSED OF A SET OF PROPOSTIONS ABOUT THE FUTURE SOCIETY OF THE WORLD AND OF THE UNITED STATES. PLEASE MARK EACH PROPOSTION ACCORDING TO YOUR OPINION ON (1) THE LIKELIHOOD THAT THESE STATEMENTS WILL BE TRUE FOR THE NEXT 10 YEARS AND (2) THE IMPACT THEY WILL HAVE ON COMMUNITY COLLEGES IF THEY OCCUR. THE RESPONSE SCALES ARE BELOW:

LIKELIHOOD OF OCCURENCE (AT LEFT)	EDUCATIONAL IMPACT (AT RIGHT)
1 = LOW LIKELIHOOD (0-20% CHANCE)	1 = LOW IMPACT
2 = MODERATELY LOW (21-40% CHANCE)	2 = MODERATELY LOW IMPACT
3 = AVERAGE (41-60% CHANCE)	3 = MEDIUM IMPACT
4 = MODERATELY HIGH (61-80% CHANCE)	4 = MODERATELY HIGH IMPACT
5 = HIGH LIKELIHOOD (81-100% CHANCE)	5 = HIGH IMPACT

EXAMPLE: IF YOU BELIEVE THAT AN EVENT LISTED WILL BE VERY LIKELY TO OCCUR FROM 1984-1994, YOUR RESPONSE ON THE LIKELIHOOD OF OCCURENCE SCALE WILL BE 4 OR 5. IF YOU BELIEVE THE EVENT WOULD RESULT IN A HIGH IMPACT WITHIN THE TIME SPAN, YOU WOULD MARK 4 OR 5.

- - - -

LIKELIHOOD OF OCCURENCE		IMPACT ON EDUCATION
____	12. MANAGEMENT OF THE CHIEF INSTITUTIONS OF SOCIETY WILL BE MORE CONCENTRATED IN THE HANDS OF AN ELITE GROUP OF VERY INTELLIGENT, HIGHLY TRAINED PEOPLE.	____
____	13. THE ROLE OF THE GOVERNMENT AT ALL LEVELS (NATIONAL, STATE, AND LOCAL) WILL BE GREATER THAN IT IS TODAY.	____
____	14. SMALL GROUP ACTS OF TERROR WILL BECOME MORE COMMON.	____
____	15. THERE WILL BE UNEXPECTED BREAKTHROUGHS IN THE PHYSICAL SCIENCES AND TECHNOLOGY, WITH POTENTIAL FOR PROFOUND CONSEQUENCES FOR SOCIETY (COMPARABLE, FOR EXAMPLE, TO THE DISCOVERY OF PENICILLIN, THE DEVELOPMENT OF THE COMPUTER, OR THE BIRTH CONTROL PILL).	____
____	16. INSTITUTIONALIZED RESEARCH PLANNING WILL DIRECT TECHNOLOGICAL ADVANCES TOWARD SOCIALLY DESIRABLE ENDS.	____
____	17. ECONOMIC AND POLITICAL POWER WILL BE MORE CONCENTRTED AND CENTRALIZED AT THE NATIONAL LEVEL.	____
____	18. A SMALLER PROPORTION OF THE POPULATION WILL HAVE INCOMES AT OR BELOW THE SUBSISTENCE LEVELS.	____
____	19. SALVAGE AND RECLAMATION/RECYCLYING OF IRREPLACEABLE RAW MATERIALS AND RESOURCES WILL BE GREATLY EXPANDED.	____
____	20. AVAILABLE JOBS WILL INCREASE MORE IN RURAL AND SUBURBAN AREAS THAN IN URBAN TRADE CENTERS.	____
____	21. ORGANIZED RELIGION WILL HAVE DIMINISHED IMPORTANCE.	____
____	22. CREATIVITY AND IMAGINATIVE THINKING WILL BE HIGHLY PRIZED BY THE SOCIALLY POWERFUL ELITE.	____
____	23. LEARNING OPPORTUNITIES FOR STUDENTS WILL BE PROVIDED THROUGHOUT THE COMMUNITY BY BUSINESS AND SOCIAL AGENCIES, WITH THE COLLEGE SERVING AS A BROKER, TO STRUCTURE AND COORDINATE STUDENT'S EDUCATION.	____
____	24. THE RATE OF POPULATION GROWTH WILL BE SHARPLY REDUCED.	____
____	25. STATE GOVERNMENTS WILL ASSUME A LARGE SHARE OF THE COSTS OF PROVIDING COMMUNITY COLLEGE EDUCATION.	____
____	26. POPULATION WILL CLUSTER IN AND AROUND SOME 20 TO 30 LARGE CITIES.	____
____	27. SOCIAL STATUS WILL BE LESS CLOSELY ASSOCIATED WITH OWNERSHIP OF MATERIAL THINGS.	____
____	28. POLITICAL AND SOCIAL PRESSURES TO IMPROVE THE LIFE OF SENIOR CITIZENS WILL INCREASE.	____
____	29. NEW KNOWLEDGE WILL CONTINUE TO INCREASE EXPONENTIALLY	____
____	30. INFORMATION HANDLING WILL BE MORE AUTOMATED.	____
____	31. IMPROVED MODES OF DISSEMINATION WILL REDUCE THE TIME LAG BETWEEN DISCOVERY AND APPLICATION OF NEW TECHNOLOGY.	____
____	32. OPERATION ROUND THE CLOCK, SEVEN DAYS A WEEK, WILL BE MORE COMMON IN MANUFACTURING, RETAILING, AND IN SERVICE INDUSTRIES.	____
____	33. IN MOST INSTITUTIONS, CONSENSUS AND PARTICIPATORY MANAGEMENT WILL BE A PREFERRED STYLE.	____

LIKELIHOOD OF OCCURENCE		IMPACT ON EDUCATION
____	34. BUSINESS DECISION-MAKING WILL PLACE MORE EMPHASIS ON SOCIAL AND HUMANE CONSIDERATIONS.	____
____	35. PRODUCTIVITY OF WORKERS IN BOTH SERVICE AND GOODS-PRODUCING INDUSTRIES WILL INCREASE DRAMATICALLY.	____
____	36. A SMALLER PROPORTION OF THE WORK FORCE WILL BE NEEDED IN GOODS-PRODUCING INDUSTRIES, WHILE A LARGE PROPORTION WILL BE NEEDED IN THE SERVICE INDUSTRIES.	____
____	37. MORE JOB DESCRIPTIONS WILL REQUIRE PEOPLE WITH HUMAN SKILLS, i.e. OPENNESS, COMPASSION, WARMTH, AND TOLERANCE.	____
____	38. COMPULSORY RETIREMENT AT A SET AGE WILL BE ENFORCED REGARDLESS OF HEALTH, ABILITY, OR DESIRE OF THE WORKER.	____
____	39. ESTHETIC AND INTUITIVE ELEMENTS OF THOUGHT WILL BE VALUED ALONG WITH THE RATIONAL AND THEORETICAL AS VALID WAYS TO APPREHEND REALITY.	____
____	40. CAPACITY FOR SELF-DIRECTION AND SELF-MOTIVATION IN INDIVIDUALS WILL BE MORE NECESSARY THAN AT PRESENT.	____
____	41. SEXUAL RELATIONSHIPS OF VARIED TYPES WILL BE OPENLY ACKNOWLEDGED AND MORE GENERALLY TOLERATED.	____
____	42. CHILD CARE CENTERS WILL BE PROVIDED AS A PUBLIC SERVICE FUNDED BY TAX MONIES FOR FAMILIES OF ALL INCOME LEVELS.	____
____	43. POLITICAL PARTIES WILL BE REPLACED BY CANDIDATE CENTERED TEMPORARY ORGANIZATIONS THAT EMERGE PERIODICALLY.	____
____	44. POLITICAL ACTION COMMITTEES (PACS) WILL EMERGE AS VERY INFLUENTIAL POLITICAL ORGANIZATIONS.	____
____	45. INDIVIDUALS WILL HAVE A CLEARER UNDERSTANDING OF THEMSELVES AND THEIR RELATIONSHIPS TO OUR NATURAL ENVIRONMENT.	____
____	46. MANY COUPLES WILL DIVIDE BREAD-WINNING, HOUSEHOLD, AND CHILD-CARE DUTIES ON GROUNDS OTHER THAN SEX.	____
____	47. SELF-IDENTITY FOR MANY PEOPLE WILL BE DEFINED LESS IN TERMS OF OCCUPATIONS AND MORE IN TERMS OF TASTES, INTERESTS, AND SKILLS.	____
____	48. THERE WILL BE A GREATER CONSENSUS ON STANDARDS OF PERSONAL MORALITY (e.g. RESPECT FOR THE RIGHTS OF OTHERS, HONESTY IN MONEY MATTERS, AND IMPORTANCE OF TRUST IN HUMAN RELATIONSHIPS)	____
____	49. A SPECIFIED LEVEL OF EDUCATION IN THE POPULATION WILL BE GUARANTEED TO EVERY INDIVIDUAL.	____
____	50. ELEMENTARY AND SECONDARY SCHOOLS WILL VARY WIDELY IN PROGRAMS AND STYLE OF INSTRUCTION THEY OFFER.	____
____	51. THERE WILL BE NATIONAL STANDARDS FOR CURRICULUM IN THE BASIC GENERAL STUDIES OFFERED TO ALL STUDENTS.	____
____	52. RAPID CHANGES IN TECHNOLOGY WILL CAUSE MANY PEOPLE TO RETRAIN FREQUENTLY AND TO SHIFT OCCUPATIONS OFTEN.	____
____	53. LEARNING THEORY AND TEACHING METHODS WILL MAKE MAJOR ADVANCES, AND STUDENTS WILL BE ABLE TO LEARN MORE IN LESS TIME.	____

Appendix G

Letter DPI Concerning Sample List of Personnel

June 28, 1984

Mr. Gerald J. McCright, Instructor
Marshalltown Community College
300 South Center Street
Marshalltown, Iowa 50158

Dear Mr. McCright:

As you requested, a random sample of the Area School staff was sampled and labels printed for you.

Our staff file is in County, District, School and Staff Member's Folder Number sequence. The program written by Iowa State University Computer Center retrieves the number of labels by selecting an individual and every N^{th} number throughout the file. We have used this method of random sampling for several years and it has been acceptable for our vendors.

If you have any questions, please feel free to contact me at (515) 281-5651.

Good luck on your doctoral dissertation.

Sincerely,

Evelyn C. Nielsen, Coordinator
Department of Public Instruction

ECN/an

Appendix H

List of Iowa Community Colleges With The Number

Of Full Time Professional Staff

List of Iowa Community Colleges with the Number of Full time Professional Staff

		Number
AREA I	Northeast Iowa Technical Institute Administrative Center Box 400 Calmar, Iowa 52132	107
Area II	North Iowa Area Community College Administrative Center 500 College Drive Mason City, Iowa 50401	136
AREA III	Iowa Lakes Community College Administrative Center 19 South 7th Street Estherville, Iowa 51334	124
AREA IV	Northwest Iowa Technical College Administrative Center Highway 18 West Sheldon, Iowa 51201	57
AREA V	Iowa Central Community College Adminstrative Center 330 Avenue M Fort Dodge, Iowa 50501	174
AREA VI	Iowa Valley Community College District Administrative Center 3700 South Center Street Marshalltown, Iowa 50158	123
AREA VII	Hawkeye Institute of Technology Administrative Center 1501 East Orange Rd. Waterloo, Iowa 50704	145
AREA VIII	No Community College	
AREA IX	Eastern Iowa Community College District Administrative Center 2804 Eastern Avenue Davenport, Iowa 52803	229
AREA X	Kirkwood Community College Administrative Center 6301 Kirkwood Blvd, S.W. Cedar Rapids, Iowa 52406	245

AREA XI	Des Moines Area Community College Administrative Center 2006 South Ankeny Blvd. Ankeny, Iowa	343
AREA XII	Western Iowa Tech Community College Administrative Center 4647 Stone Avenue Sioux City, Iowa 51102	117
AREA XIII	Iowa Western Community College Administrative Center 2700 College Road Council Bluffs, Iowa 51502	119
AREA XIV	Southwestern Community College Administrative Center 1501 West Townline Street Creston, Iowa 50801	55
AREA XV	Indian Hills Community College Administrative Center Grandview and Elm Ottumwa, Iowa 52501	137
AREA XVI	Southeastern Community College Administrative Center Highway 406 West Burlington, Iowa 52655	109
	Total	2,220

SOURCE: Directory of Iowa Area Colleges, Department of Public Instruction September, 1983

Appendix I

Cover Letter For Surveys

June 13,1984

Dear Participant,

I am conducting a research study which will examine perceptions of quality in community colleges and perceptions of the Post Industrial Society of the future.

A sample of Iowa community college personnel is being asked to participate in the study.

The major premise in this study is that all education reflects some image of the future and this study assumes that this view of the future will be important in strategic planning for community colleges.

Developing a survey instrument to determine characteristics of quality in the community colleges has been challenging. The buzzwords "quality" and "excellence" appear regularly in the literature and in college catalogs. Thus, a purpose of this study is to substitute rhetorical views of quality with factual statements.

Please help me make a contribution to the growing literature on quality in community colleges by taking the time to complete and return the enclosed survey.

(It will also help me over the last hurdle toward my Ed.D.)

To maintain confidentiality, the number on the return envelope will only be used for a followup letter to nonresponders. The completed survey will remain unmarked and will be mixed in such a way as to obtain anonymous raw data. No identification of individual respondents will be made in the completed research.

Thank you,

Gerald J. McCright, Instructor
Marshalltown Community College
Marshalltown, Iowa 50158

- -

IF YOU WOULD LIKE A COPY OF THE RESULTS OF THIS RESEARCH, PLEASE TEAR OFF THIS FORM AND SEND WITH YOUR NAME AND ADDRESS TO:

Gerald J. McCright _____

Marshalltown Community College _____

Marshalltown, Iowa 50158 _____

Appendix J

Cover Letter From Dr. Prihoda

IOWA VALLEY COMMUNITY COLLEGE DISTRICT

ADMINISTRATIVE OFFICES: 3700 South Center St., Box 536, Marshalltown, Iowa 50158, Phone (515) 752-4643

June 13, 1984

TO: Iowa Community College Professionals

FROM: Dr. John J. Prihoda, Superintendent/President

How many times has each of us said, "We need more basic research that is unique to the community college?"

The enclosed survey is part of a research project being conducted by Gerald McCright, instructor at Marshalltown Community College. This research has caught my interest for two reasons:

1. It concerns perceptions of quality in community colleges, and

2. It relates directly to everyday activities at our Iowa Community Colleges.

I am asking you to please take the time to complete this survey and return it to Mr. McCright. An excellent response from our fifteen area colleges will effect meaningful results. I guarantee that the survey will prompt you to think about the future of community colleges.

My thanks to you for responding to McCright's request.

Sincerely yours,

John J. Prihoda, Ed.D.
Superintendent/President

JJP:JAMcK/th

Enclosure

Appendix K

Follow-Up Letter to Non-Responders

July 11,1984

Dear Participant,

During the third week in June, you should have received a letter containing two survey instruments entitled "Characteristics of Quality in Community Colleges" and "Perceptions of the Future Environment of Community Colleges". This is part of the data collection for a research study being conducted in Iowa Community Colleges.

As of July 11, I have received 105 replies, which is a response rate of over 50%. Needless to say this is excellent for a random mail survey conducted in the month of June.

My deadline is nearly up for collecting data, and I would like to include your input into the study. Another copy of the cover letter and the surveys are included in case the others got lost in the midsummer rush.

Thank you,

Gerald J. McCright

VITA

The author was born and raised in Ottumwa, Iowa. After graduating as valedictorian of his high school class, he received a Bachelor of Arts degree from St. Ambrose College in Davenport, Iowa. His major was Business Administration and Economics.

Immediately following graduation, his professional career began as an Industrial Engineer for John Morrell and Co. in Ottumwa. The position included doing time and motion studies, production planning and plant layout.

From this position, Gerald was drafted into the Army and served two years as Personnel Specialist in the Adjutant General Corps. He then pursued a career as an educator and enrolled at the University of Iowa to do graduate work in Economics and Education.

Upon graduation with a Master of Arts degree in Economics, he taught Economics and Government in three high schools. In 1967, Gerald was appointed as instructor at Marshalltown Community College in Marshalltown, Iowa. His roles at the college included the following: department chairperson, faculty senate president, chairperson of the North Central Self-Study, instructor-of-the-year, and educational tour director. Presently, he is serving as

department chairperson and coordinator of an off-campus site for the college.

Gerald has continued his education with summer institutions and non-degree programs at Purdue University, Iowa State University, Indiana University, and the University of Missouri. His career interests have broadened with these experiences to include human relations in education, personal finance, and community colleges in higher education.

In 1979, he enrolled in the Nova University (Iowa Lakes Cluster) program in higher education.

Gerald is married. His wife, Kathleen, is a geriatric nurse. They have four sons and three daughters. The oldest is a Peace Corps Volunteer in the Central African Republic. The other children are all in various phases of education with enrollment in two universities, one four year college, one community college, and the youngest in high school.

MARP SIGNATURE PAGE

I certify that I have read and am willing to sponsor this Major Applied Research Project submitted by Gerald J. McCright. In my opinion it conforms to acceptable standards and is fully adequate in scope and quality as a Major Applied Research Project for the degree of Doctor of Education at Nova University.

_____ (date)

_____
George M. Barton
MARP Advisor

I certify that I have read this Major Applied Research Project and in my opinion it conforms to acceptable standards for a Major Applied Research Project at Nova University.

_____ (date)

_____
Donald Fleming
Local Committee Member

This Major Applied Research Project was submitted to the Central Staff of the Center for Higher Education of Nova University and is acceptable as partial fulfillment of the requirements for the degree of Doctor of Education.

_____ (date)

_____
Ross Moreton
Central Staff Committee Member

ERIC Clearinghouse for Junior Colleges
SEP 20 1985